THE UNIVERSITY OF ALBERTA

SIMILE AND METAPHOR PRODUCTION IN

CHILDREN'S ORAL LANGUAGE

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA

FALL, 1976

ABSTRACT

This study of metaphoric productions in the oral language of grade four, six and eight children had three major purposes. These were to design an instrument to elicit oral production and meta-linguistic knowledge of simile and metaphor, to examine the nature of these figurative responses to different tasks and stimuli by different grades, and to develop analytic criteria to examine quantitative and qualitative aspects of metaphoric productions.

The sample consisted of ten boys and girls at each grade level. A selection criterion of IQ score with the range 110-125 was applied. Children's oral responses were tape recorded and transcriptions of similes and metaphors made to data sheets. The measurement instrument included tasks which ranged from a descriptive/criterial task to an association task to a storytelling task. Additional tasks with and without examples were used to test the presence of children's meta-linguistic awareness of simile and metaphor. The stimuli used with the tasks varied on a concrete-abstract dimension.

Categories for analysis of the data were suggested by the children's responses. Similes were classified as true similes, partial similes, incomplete similes, attenuated similes, restricted similes or associational links. Metaphors were either true metaphors, frozen metaphors, pseudometaphors or associational links.

The data collected were analysed statistically by analysis of variance to examine quantitative and qualitative aspects of responses. It was found that type of stimulus was the most influential factor in inducing children's oral metaphoric language. Nature of task

also proved to be of significance in children's spontaneous oral

production of similes and metaphors. There were no significant

differences across grade levels for spontaneous metaphoric language

tasks, but for metalinguistic tasks grade level was a significant

feature.

The scale devised was useful for differentiating types of

simile and metaphor and in addition suggests a possible base for

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THE PROBLEM

STATEMENT OF THE PROBLEM

There is a lack of research which looks at children's spontaneous and oral language in terms of figurative language, specifically simile and metaphor. Likewise, language texts and curriculums tend to lack consistency in their treatment of figurative language at the elementary level, and it is usually not until the upper elementary to junior high school level that simile and metaphor are treated deliberately as an important aspect of language expression. Where simile and metaphor are met in language programs it seems to be in relation to literary models, where analysis of figurative language is the dominant instructional mode, with little attention being given to the use, production, and expansion of figures of speech in children's oral and written language.

Yet children do use simile and metaphor in their spontaneous oral language at an early age, and in their written language (Sweet, 1974; Pollio and Pollio, 1974). Studies that have looked at metaphoric production in oral language situations have tended to elicit metaphoric production by providing the subjects with incomplete, unfinished similes (Gardner et al., 1974; Holstein, 1972), or by having subjects match words with nonverbal elements (Gardner, 1974). Consequently the child has not responded with his or her own spontaneous similes and metaphors, as the main subjects, indicators of resemblance, and foci of

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metaphor expressions were given.

One possible reason for the lack of academic attention to spontaneous use of metaphoric language is that although "associational or metaphorical activity is present in our use of language far more universally than we recognize" (Leone, 1973, p. 1276), we barely notice it, and so its presence for the most part goes undetected. This unawareness of usage is also true of children's oral language. Children and adults conduct their everyday affairs in a plain and practical language. Yet, as Embler (1959) observes, "except for matter-of-fact information, this everyday language is surprisingly metaphorical" (p. 323). But our language does not "have a discrete word for every conceivable attribute one might wish to mention" (Ortony, 1975), and well that it doesn't, else we would have a bland, limiting language. Therefore metaphor, along with other forms of figurative language, acts as a means of introducing new concepts and attributes to the user of language, and the recipient of language, through association of words, ideas, and images already known and conceptualized by the user and recipient. For children, who have a more limited range of vocabulary and verbal symbols at their disposal than do adults, metaphorical-associational thought and language activity might be a very important and widely resorted-to learning process in the development of language and cognition.

The lack of information concerning how children think meta-phorically, in contrast to the abundance of information which indicates that metaphorical thinking is an important creative thought process, led one researcher (Holstein, 1972) to study metaphorical thinking in

children using a case study method. Other researchers and writers have voiced the need for the instruction and encouragement of metaphorical thought and expression in elementary school children. Schaefer (1975) suggests that nearly all children begin life highly creative, but that after a few years of formal schooling this creative ability wanes. Osborn and Richards (in Shibles, 1971) concur that students need to become more familiar with analogical forms of reasoning, and metaphorical association in particular.

There seems to be little doubt that the metaphorical process plays an important role in learning, conceptualizing, and creative expression. Instruction in metaphoric thought and language will help the pupil "to see how many more alternative modes of reasonable understanding are open to him" (Richards, 1938, p. 293).

PURPOSES OF THE STUDY

In general terms the purposes of the study are:

1. To design an instrument to elicit spontaneous oral production of simile and metaphor, and metalinguistic knowledge of simile and metaphor, at grade levels 4, 6 and 8.

2. To elicit and examine children's oral production of simile and metaphor, firstly to determine if these features of figurative language exist in middle childhood, and then to examine the nature of responses to different tasks and stimuli, and the nature of change in usage across increasing grade levels.

3. To develop criteria for analysis of children's oral production of simile and metaphor, and to examine both quantitative

and qualitative aspects of metaphoric productions.

DEFINITIONS OF TERMS USED IN THE STUDY

The following terms, as defined, are used throughout the study. In keeping with the majority of writers and researchers in the area of children's figurative language, this investigator uses the terms *metaphoric language* and *metaphoric production* to include both simile and metaphor, simile generally being considered as a metaphor made explicit.

SPONTANEOUS ORAL LANGUAGE: The production of oral language without external encouragement in the way of linguistic forms and cues (incomplete sentences, polar adjectives, modifiers, etc.), either of an oral or written nature.

FIGURATIVE LANGUAGE: Using words out of their literal meaning to add beauty of force to an expression. Figurative language deviates from the literal or standard construction, order and significance to achieve special meaning or effect. Figurative language is an element of composition that can make an otherwise prosaic statement into one that evokes a mental picture and feeling.

SIMILE: An explicit assertion of a similarity, using AS or LIKE as the indicator of resemblance.
A simile contains a main subject, a subsidiary subject, and a focus which indicates the associated commonplace or the similarity between the main and subsidiary subjects.
e.g. The dog's legs look like those big brushes they use on

car washes.

Main subject - dog's legs

Subsidiary subject - brushes on car washes

Focus - looks

Indicator of resemblance - like.

METAPHOR: A figure of speech in which a word denoting one object or idea is used to add meaning to another object or idea through the similarities between the two.

Metaphor involves the selection of appropriate associated commonplaces from a network of commonplaces attached to the subsidiary subject and applying them to the main subject.

SUBSIDIARY SUBJECT: The figurative part of a simile or metaphor from which certain associated commonplaces are selected and attached to the main subject.

e.g. That deer has hooves as hard as a rock.

The dog's tail is a ball of snow.

MAIN SUBJECT: The referent or literal part of a simile or metaphor.

e.g. The giraffe is like a swooping crane.

The dog is a small masked man.

FOCUS: The focus of a simile or metaphor is the word or expression having a distinctly metaphorical use within a limited frame. In many metaphors the focus is synonymous with the main subject.

e.g. The dog is as fluffy as a cloud.

His tail looks like a duster.

The antlers are trees.

The giraffe is a <u>tall</u> tower.

FRAME: The frame of a simile or metaphor includes the main and sub-
sidiary subjects; it is the entire metaphorical expression
minus the focus.

The frame is the context of the metaphorical expression. In
many metaphors, where the focus is synonymous with the main
subject, so the frame is synonymous with the subsidiary
subject.

ASSOCIATED COMMONPLACES: The network of meanings or associations
attached to both the subsidiary and main subjects of a simile
or metaphor, from which appropriate associations are selected
and combined to create the simile or metaphor.

In simile the associated commonplace(s) is/are explicit; in
metaphor they are implicit.

THE QUESTIONS ADDRESSED IN THE STUDY

These questions provided the focus of the study:

Question 1. Is there increased production of simile and metaphor
across grade levels 4, 6 and 8?

Question 2. Is there a qualitative difference across grade levels 4,
6 and 8 of similes and metaphors produced?

Question 3. What effects do different tasks have on the production
of similes and metaphors?

Question 4. What effects do different stimuli have on the production
of similes and metaphors?

Question 5. For the metalinguistic tasks, is there increased

production and quality of simile and metaphor across grade
levels 4, 6 and 8?

Question 6. For the metalinguistic tasks, what are the effects of
different stimuli on the production of simile and
metaphor?

DESIGN OF THE STUDY

Sample

Sixty children, comprising twenty from each of the grade
levels 4, 6 and 8, participated in the study. There were equal
numbers of boys and girls, and the criterion for selection was an
IQ score of between 110-125 inclusive as measured by the Canadian
Lorge-Thorndike Intelligence Test for each grade level. The subjects
were drawn from two schools in an urban satellite school district in
central Alberta.

Procedures

An instrument was designed to elicit children's figurative
oral language, using stimuli and tasks developed especially for this
purpose. A pilot study tested the effectiveness of the instrument,
and minor modifications were made prior to conducting the main study.

Children were seen individually by the researcher, who
attempted to promote as relaxing an atmosphere as possible so as to
allow for spontaneous oral language production.

Following categorization of all transcribed simile and meta-
phor, statistical analysis by three-way and two-way analyses of
variance looked at quantitative and qualitative aspects of simile

and metaphor across the three variables of grade, task and stimulus.

From the data the researcher developed criteria and definitions for analysis of children's simile and metaphor responses.

The Significance of the Study

Metaphoric thought is important in the cognition process in general, and especially for creative thought, real understanding, and effective communication. The use of simile and metaphor as a highly personal tool by children means that they can describe their internal and external worlds in imaginative and inventive terms unique to each individual.

This study is significant in adding to teachers' understanding of the role of metaphoric thought and language in the learning process, and in oral communication situations. Language arts curriculums and programs in the elementary school have not generally looked at figurative language development in a systematic sense, and this study might be significant if it helps to develop an awareness of the need to systematically develop children's figurative language.

The design of the study, specifically the tasks and stimuli, might be of use in the design of programs for the development of children's figurative language. Teachers could adopt parts of the design for lesson planning in language arts programs which focus on the development of metaphoric thought and language.

There is also significance for further research in the field, and the design and instrumentation of the study might suggest possibilities for extending our knowledge of children's use and development of oral and written figurative language, and concomitantly

the learning and thought processes.

Chapter 2

REVIEW OF THE RELATED LITERATURE

INTRODUCTION

Do children use figurative expressions in their oral language, specifically simile and metaphor? This chapter sets out to explore the research and theoretical postulations which deal with figurative language and children's use of simile and metaphor in reading, written and oral language. It seems clear that metaphoric thought and language appear in children's oral language from an early age, yet research has not focused on its occurrence in spontaneous oral language in the middle childhood years.

The chapter looks firstly at the philosophical underpinnings to creative thinking, critical thinking and the association of ideas. The second part of the chapter then focuses on specific research and on theoretical considerations which look at children's understanding and use of metaphoric language and thought processes.

Discussants of metaphor, metaphoric language, association of ideas, and creative thinking invariably subsume simile as part of metaphor.

The eleventh edition of the Encyclopaedia Britannica, Volume 18, 1910, describes metaphor as an abridged simile (p. 224), while Allen in the Encyclopaedia Britannica, Volume 16, 1961, further points out that metaphor is ". . . in essence an emphatic comparison, which if expressed formally is a simile" (p. 328). Simile can therefore be

understood as a metaphor made more explicit, or more emphatic, and

where the transferred object, attribute or name is usually stated.

In metaphor the transferred object, attribute or name is implied.

When metaphoric language and usage is referred to in this

thesis, both simile and metaphor production is meant.

PART A. PHILOSOPHICAL BACKGROUND TO CREATIVE THINKING, CRITICAL THINKING, AND THE ASSOCIATION OF IDEAS

Philosophers who have attacked the concept of association of

ideas have also hit at the roots of metaphorical language. Locke

believed that reflection was a psychic activity similar to association,

but that reflection was simply an association of similarities.

Intuition was seen as the basic act of the mind that establishes

similarities and differences. "What Locke called intuition, later

associational philosophy called association by similarity" (Rapaport,

1974, p. 81).

The link between association by similarity and metaphoric

thought was seen by Richards (1938), when in his Introduction he

states:

> Generalization is systematic abbreviated paralleling, and
> choice between similes and metaphors is chiefly a matter
> of rapid recognition of likes and discrimination between
> dislikes (p. 15).

Rapaport (1974) concludes his discussion of associational philosophy

by determining that a common thought runs through the many philosophers

discussed in that work, that being that the emergence of associations

is determined by curiosity, by interest, and by desires.

Creative thinking must be seen as a process also involving

the association of ideas. When we think about something contempla-

tively or reflectively we associate known ideas to unknown ideas,

and likewise metaphor is "the means by which the less familiar is

assimilated to the more familiar, the known to the unknown" (Murry,

in Henle, 1966, p. 192). Newell et al. (1964) state the same

associational concept in the use of imagery.

> In order for us to think about something, that something
> must have an internal representation of some kind, and
> the thinking organism must have some processes that are
> capable of manipulating the representation. We have called
> such a combination of representation and processes a
> system of imagery (p. 102).

They go on to elaborate that herein there lies both the power and

danger of imagery as a tool of thought.

> The richer the properties of the system of imagery we
> employ, the more useful is the imagery in manipulating
> the representation, but the more danger there is in that
> we will draw conclusions based on properties of the
> system of imagery that the object represented doesn't
> possess. When we are aware of the danger—and are
> conscious that we have encoded information into a system
> of imagery with strong properties—we are likely to call
> the image a metaphor (p. 103).

However, it stands to reason that many times we may not be conscious

that we have encoded information into a system of imagery with strong

properties, yet still our language employs metaphor. This sub-

conscious use of metaphoric thought and language might well be

indulged in by children.

Crutchfield (1964) suggests that one source of original ideas

might be "the ready accessibility to the thinker of many rich and

subtle *physiognomic* attributes of the percepts and concepts in his

mental world and to the metaphorical and analogical penumbras

extending out from their more explicit, literal, or purely logical

features" (p. 124).

Because children, to varying extents at different age levels, perceive physiognomically, we might expect from Crutchfield's suggestion that children may indeed have at least the perceptual requisite for the creation of original ideas. Crutchfield implies this very ability, which includes the existence of metaphoric thought in children, when he states:

> What is often required is the kind of fresh, spontaneous, childlike mode of perception . . ., an ability where necessary to go beyond the stereotyped and narrower kind of *objective* reality which is demanded by metaphorical and physiognomic qualities (p. 124).

Altick (1960) sees metaphors as an extended feature in helping man perform one of his most difficult intellectual tasks, "that of making the abstract comprehensible in terms of ordinary experience and of explaining the seemingly mysterious in everyday language" (p. 245). Metaphors and metaphoric thought are postulated as psychologically indispensible to man, and therefore children, in a complicated, often baffling, and even a frightening world.

Metaphoric thought is often employed by a child or adult when confronted by a new concept or thing. Associational thought processes are involved, and commonalities and comparisons are drawn from prior established concepts and from previous experience to root the new concept or thing. Metaphoric thought thus becomes a powerful tool in the assimilation, integration and tagging of new knowledge.

For Richards (1938) thought is radically metaphoric in nature, not merely that thought expresses itself in linguistic metaphors. Richards sees metaphoric thought and metaphoric language as not

necessarily corresponding, though he does temper this idea with a
statement to the effect that it usually does. ". . . thought will
often adopt the verbal metaphor when it is noticed" (p. 49). Here
Richards' discussion of creative and critical thought corresponds
closely with that of Newell et al. (1964) who discuss the conscious
encoding of information into a system of imagery, the key word being
conscious. However, Richards is also aware of the unconscious
association of ideas which allows for the unconscious use of metaphor.

> The use of metaphorical language means that a great deal
> of the sense of the passage will depend upon the unconscious
> association of ideas (p. 141).

C. S. Lewis (1962) also sees thought as independent of the
metaphors we employ, in so far as the metaphors are optional, "that
is, in so far as we are able to have the same idea without them"
(p. 43). But for all of us there are things we cannot fully compre-
hend at all, even after a period of time, but of which we can get at
partially by means of metaphor. This statement is particularly
pertinent to children's understanding. "And in such cases the relation
between the thought and the metaphor is above the truth of the original
metaphor" (pp. 39-40). Here Lewis is suggesting the creative function
of metaphor, which is not a conscious function when the user is
grappling for understanding by using metaphor as a tool of thought.

Vygotsky sees the beginnings of thought and language as
separate embryos, but in the school age child and in adults thought
is hardly possible to any significant degree without language.
Wheelwright (1962) further states that there can be no language to
any significant degree "without metaphoric activity opened or

concealed" (p. 128). If a thinker acts consciously to free himself from symbolic and metaphorical thought, what he actually does "is limit himself to the symbols and rigidified (or dead) metaphors which have become habitual stereotypes in everyday life" (p. 128).

Imagination and Metaphor

The basic nature of imagination is to see one thing in terms of another, to associate two disparate things. Imagination is ultimately related to, and dependent upon, metaphoric thought and language. Metaphoric imagination is a creative power that makes us aware of new aspects of our environment, and of new possibilities for action within our environment. It also allows us to extend intellectually beyond our environment, and metaphoric thought has been the root or flux of more than one new scientific thought or concept.

Murry (1931, p. 14) describes the world of imagination as one not opposed to reality, but as an extension and deepening of reality, and therein requiring metaphor to express it. Wheelwright (1962) is more succinct when he says that: "Imaginative language is basically metaphoric" (p. 130). Imagination tends to look for insights, though at times imagination might be simple fantasy and as such might only touch reality tangentially. Black (1962) looks upon metaphorical thought as a distinctive mode of achieving insight, and as such metaphorical thought is "not to be construed as an ornamental substitute for plain thought" (pp. 236-237).

Metaphorical thought also operates when new, unexploited, imaginistic, or abstract possibilities of thought flood the human mind. Associational-metaphorical thought processes often function

to overcome the limitations of functional language, and act as a
learning tool to comprehend, assimilate and initially cognize the
radically-new challenge of thoughts, ideas and possible concepts.
Susan Langer considers that the poverty of everyday language becomes
acute, and that "such a state of mind is particularly favorable to
the development of metaphorical speech" (Langer, 1974, p. 149).

Logical Thought and Metaphor

In the elementary school curriculums that have pervaded
pedagogy since standardized, prescribed curriculums have evolved,
the domain of the development of logical thought and analytical
thought has been almost exclusively reigned over by mathematics and
science. This trend might be even more obvious at the high school
levels than at the elementary levels. But the intertwined relation-
ships between logical thought and metaphorical thought have been
largely unexplored and undeveloped.

Richards (1938) sees mathematics and the sciences as providing
"the leisurely, analyzed, explicitly recorded, developments of the
very same process that, well or ill, operate in the main mode of
metaphor" (pp. 15-16).

This same link between metaphoric, and what might be called
scientific thought, is spoken of by Hutton (in Black, 1962b). Black
notes that to many people the use of models in the sciences has
strongly resembled the use of metaphors. He then quotes Hutton as
one of the most articulate of the thinkers:

> We are forced to employ models when, for one reason or another,
> we cannot give a direct and complete description in the
> language we normally use. Ordinarily, when words fail us,

we have recourse to analogy and metaphor. The model
functions as a more general kind of metaphor (p. 236).

Langer (1957) also suggests a link between scientific thought
and metaphorical thought. She sees metaphor as the natural instrument
of our greatest mental achievement, which is abstract thought.
Metaphor is "an instrument of abstraction" (p. 104). Metaphor is the
force that makes language "essentially *relational*, intellectual,
forever showing up new, abstractable *forms* in reality . . ." (Langer,
1974, p. 141).

Vygotsky (1962) studied the development of scientific concepts
in childhood. At this stage of the discussion it would be useful to
look at Vygotsky's conclusions, with the concept of metaphorical
thought foremost in mind.

VYGOTSKY: The Development of Scientific Concepts
  in Childhood

For Vygotsky "the higher intellectual functions, whose main
features are reflective awareness and deliberate control" (p. 90),
come to the forefront of the developmental process during the early
school years. He states that at this point it might be said that
"both attention and memory become *logical* and voluntary, since
control of a function is the counterpart of one's consciousness of
it" (p. 90). However, Vygotsky goes on to say that ". . . con-
sciousness and control appear only at a later stage in the development
of a function, after it has been used and practiced [sic] uncon-
sciously and spontaneously" (p. 90). It would appear that Vygotsky
allows that the unconscious use of metaphoric thought and language
be employed by children prior to their conscious use of such.

Vygotsky defines consciousness "to denote awareness of the activity of the mind—the consciousness of being conscious" (p. 91). He concurs with Piaget that introspection, which is reflective thought, "begins to develop only during the school years" (p. 91). Vygotsky then goes on to say that "reflective consciousness comes to the child through the portals of scientific concepts" (p. 92). As previously discussed in this chapter, both introspection and reflective thought can involve the use of metaphoric thought.

> In the scientific concepts that the child acquires in school, the relationship of an object is mediated from the start by some other concept (p. 93).

Here Vygotsky is suggesting that scientific concepts lead the child to systemization of everyday or spontaneous concepts, and thus change their psychological structure. Metaphoric thought might well operate after or along with the mediational process of scientific concepts, therefore explaining how the psychological structure of everyday concepts might be changed.

This leads Vygotsky into transfer of learning, and he contends that "instruction given in one area can transform and reorganize other areas of child thought" (p. 96). Thorndike's theory, which "reduces all learning to the formation of associative bonds" (Vygotsky, 1962, p. 96) is used by Vygotsky as an extreme application of a transfer of learning theory, but the importance of metaphoric thought is still recognizable in terms of Vygotsky's discussion of the involvement of the main psychic functions in studying various subject areas (p. 102).

A scientific concept involves from the outset what Vygotsky

terms a "mediated" attitude towards its object, and further to this he describes the development of scientific concepts as progressing "downwards, to a more elementary and concrete level" (p. 108). Implied in this statement is that scientific concepts begin at an abstract level where mediation towards an object is adopted. The opportunity for metaphoric thought to function at the initial abstract and mediational level seems highly probable. To further the incorporation of new structures into a child's thought Vygotsky makes reference to Wertheimer, who "demonstrated that productive thinking is contingent on transferring the problem from the structure within which it was first apprehended to an entirely different context or structure" (Vygotsky, 1962, p. 116). The transference of a problem, thing, idea or object to an entirely different context might very well involve metaphoric, associational thought.

Language and Metaphor

The pervading idea of the study of metaphoric language in many programs of literature studies in school curriculums has been that metaphor is an embellishment of language, to be studied and analyzed, but its use really reserved for writers and poets. Even literary critics are now intolerant of this attitude. Murry (1960) suggests that metaphor is essential to precision of language, and supposes that three-quarters of the epithets we have are in fact old metaphors. "Try to be precise, and you are bound to be meta-phorical . . ." (pp. 75-76).

One writer sees the general function of metaphor as that of extending language, of saying "what cannot be said in terms of literal

meanings alone" (Henle, 1966, p. 187). He sees the extension of language in either of two directions, "by way of increasing the scope or breadth of language or alternatively by increasing the finesse or depth of language" (p. 187).

We use metaphor in our everyday language to communicate some-thing forcefully, with feeling and emotion. Brown (1971) states that this metaphoric quality of language is also present in the speech of the intermediate grade child. Opie and Opie (1959) found that many of the child's riddles are metaphoric in quality, and Hollingsed (1959) discovered that figures of speech are used in the stories and poems of intermediate grade children, and similes, metaphors and personification occurred most frequently.

Metaphor plays an important part in the handling of new experience, in the naming of something new, or in the expression of a relationship which is unique. Langer (1957) postulates that there are times when "our comprehension of a total experience is mediated by a metaphorical symbol because the experience is new, and language has words and phrases only for familiar notions" (pp. 23-24). In further writings (1974) she states that each new experience, or new idea about things, first of all evokes some metaphorical expression. "The spontaneous similes of language are our first record of similar-ities perceived" (p. 141). Langer notes that "the use of metaphor can hardly be called a conscious device" (1974, p. 141), and this idea is contiguous with Vygotsky's remark that "child thought is nondeliberate and unconscious of itself" (1962, pp. 87-88).

If metaphor is at the roots of our language, it is reasonable

to expect that metaphor is also operative in the development of
children's thought and language. Altick (1960) notes that there are
countless words in our language that were originally metaphors, though
no longer recognized as such (p. 245). He continues by saying that
inevitably the very use of language must involve words that originated
as metaphors, even if their metaphorical significance is now lost, and
they have become faded or dead metaphors. However, he states, ". . . it
is hardly possible to write or speak without using metaphorical expres-
sions that still have a certain power to suggest a comparison"
(p. 245).

The tendency in language use of communicating things in terms
of something else is an integral part of human communication. Brown
(1971) comments that "much of what we say in everyday conversation is
not literal" (p. 188).

Metaphor serves as a learning tool also, most likely in an
unconscious manner. As reflective thought can involve metaphor, so
can the resulting metaphoric thought lead the user to introspection
and deeper understanding. Turbayne (1970, p. 102) states it thus:

> A good metaphor sometimes enables us to learn not only more
> about the nature of the thing illustrated but, through it,
> more about the nature of its literal meaning.

PART B. METAPHOR IN CHILDREN'S LANGUAGE AND THOUGHT:
STUDIES AND WRITINGS

This part of the chapter will be treated under various sub-
headings which individually look at metaphor language, and figurative
language in general, with respect to developmental trends, reading,

cognition, creativity, imagination, writing, and oral language.

Children's Understanding of Figurative
Language in Reading

Numerous studies in reading have shown that children are exposed to figurative language, and a wide variety in many instances, in readers in the middle grades, i.e. grades 4, 5 and 6 (Hollingsed, 1959; Lockhart, 1972; Burt, 1972). As children at these grade levels progress through the readers they might well be subconsciously assimilating and comprehending some figurative language, and it might be reasonable to expect them to be able to produce figurative language to a degree.

Burt (1972) assessed the understanding of grade five pupils of similes in context in children's fiction. She found that when pupils were asked to explain similes from fiction they constructed their own similes to explain those of the authors.

In 1973 Smith looked at Grade 6 and Grade 8 children's verbal responses to written, embedded metaphors and found that the ability to understand metaphorical language is associated with higher level reading skills. A descriptive Piagetian analysis of the quality of responses led him to conclude that poorest responses were associated with concrete, transductive thinking (concrete operations), while the best responses showed abstract, flexible schema, hypothetico-deductive reasoning and propositional thought (formal operations).

Robertson (1973), in writing about figurative language and its importance in reading, suggests that the use of figurative language is natural for children as well as adults. She concludes

that if students can "learn to form better similes out of their experience and to use them more precisely in their writing, they will appreciate and understand those similes used by authors" (p. 51).

Cognitive Development and the Understanding
   of Metaphor

When Smith (1973) studied children's understanding of written metaphor, he linked responses to metaphors with cognitive operational stages, suggesting that true metaphoric understanding requires formal operational cognitive processes. This researcher considers that Smith's finding does not suggest that metaphoric use requires that same cognitive level.

Billow (1973) focuses his study on cognitive development and metaphor comprehension (in contrast to production); he sees metaphor comprehension as a considerable cognitive accomplishment, and looks at similarity metaphor—involving the concept of class inclusion—in terms of concrete operational cognitive development, and proportional metaphor—involving the concept of proportionality—in terms of formal operations. He concludes that a *figurative sense* exists quite early in the child's development, as five-year-olds in his study comprehended an average of 29% of similarity metaphors. However, younger children were less able to regularly understand figuration than were older children. Billow noted that no clear-cut distinction serves to differentiate between concrete and formal operational stages, as proportional metaphors, "like many tasks ostensibly involving formal operations, may sometimes be solved by less advanced cognitive processes" (p. 422).

Emig (1972) sees metaphor, "at least for the very young child, as a necessary, rather than an optional, feature of discourse" (p. 169). Developmentally she proposes that use of metaphor is linked with cognitive developmental trends, and that whenever children, and adults too, try to cope with a new concept, metaphor becomes a necessary feature of discourse. Emig states that a child needs to have reached a certain level of cognitive development to produce metaphor, and that a certain level of concept formation must have occurred.

Samples (1975) prepares a case for educational attention to the analogic, metaphorical and intuitive function of the human mind. He explains that the assumption that the development of cognitive skills produces concomitant growth in affective areas is not necessarily true, and that studies conducted by his team since 1968 have shown that the opposite is more often true. If the affective— what Samples calls the analogic, metaphoric and intuitive (p. 25)— qualities "are intentionally served in instructional settings, then cognitive skills become far more easily attained" (p. 27).

Metaphor, Creative Thought, and Imagination

A number of studies and papers have focused on the relationship between metaphorical use and creative, innovative and imaginative thought. In a theoretical study, Brown (1971) set out the implications of the imaginative power of metaphor for a literature program in the elementary school.

Anderson (1964) takes a look at metaphoric language from a psychological perspective, and concludes that underlying even

superficial forms of metaphor is the sort of categorizing and analogi-
cal reasoning that "is fundamental to all thinking, and especially to
creative thinking" (p. 54). He borrows Bruner's contribution to
symbolic-cognitive styles of problem-solving which maintains that
the individual may solve new problems not by old habits and con-
tingencies, but by going beyond the information given to extrapolate
and predict events and behaviour beyond the confines of the data.
"Bruner claims that this going beyond the information given can be
described as having a *metaphoric idea* or a *combinational idea* . . ."
(Anderson, 1964, p. 60).

Many writers concur that metaphor is an essential feature of
communication and is consequently of great educational value (Ortony,
1975; Osborn, in Shibles, 1971; Richards, 1938). Ortony (1975)
considers that "it has been amply demonstrated that imagibility
correlates very highly with learnability. Richness of detail in
communicative potential provides a powerful means of moving from the
known to the less well-known or unknown, and this, of course, is an
important pedagogic function (p. 51). He sees metaphor as not only
supplementing knowledge about an already-understood topic—an
expansion function—but also being used to describe unfamiliar topics.

> The great pedagogic value of figurative uses of language
> is to be found in their potential to transfer learning and
> understanding from what is known to what is less well-
> known and to do so in a very vivid manner (Ortony, 1975,
> p. 53).

The importance of metaphorical activity for creative thought,
real understanding and effective communication is further investigated
by Schaefer (1975), who proposes a Similes Test for measuring

metaphoric thinking from his own studies of creative children and adolescents. Although Schaefer's subjects were narrowly selected by a criterion of high-creativity, he suggests that the results obtained leave "little doubt that the metaphorical process plays an important role in learning, knowing, and creative expression" (p. 147). In order to foster the growth of creativity in children Schaefer suggests that teachers encourage children to make more conscious use of metaphors, similes, and figures of speech in their thinking and their expression.

In a study that used metaphor to induce inductive thinking in fourth grade children, Holstein (1972) introduces her research by stating that creativity is an essential process in order for individuals to function in a rapidly changing world. Metaphoric activities were given children by asking them to compare (a simile activity), and to become (a metaphor activity, eliciting personification). Statistical analysis revealed very little metaphorical language used in written composition, but "more spontaneous direct analogies occurred in spoken language" (p. 58). This observation suggests to this researcher the need and importance of investigating children's spontaneous use of metaphoric oral language where the linguistic restraints of written language tasks do not impede or structure the child's language production or fluency. Holstein concluded that the exercises did help the children to become more innovative in their speaking and writing. "Spontaneity, feeling and ingenuity which were apparent in oral responses did not carry over into their writing" (p. 59).

The Use of Figurative Language in
  Children's Writing

Horne (1966) set out to determine if activities centred
around excerpts from children's literature would provide experiences
conducive to the understanding and use of figurative language in the
narrative and descriptive writing of grade six pupils. She found
that pupils profit from instruction in the understanding and use of
figurative language (simile, metaphor, personification, hyperbole,
metonymy), and that experience would appear to be more important
than age in producing figurative language. There was no significant
difference between sexes in the use of figurative language, but the
findings supported other research in determining that intelligence
as measured by I.Q. tests is related to success in understanding of
figures of speech. This finding influenced this researcher in the
determination of a sample selection for the study undertaken for this
thesis.

The specific purpose of the Pollio and Pollio (1974) study
was to determine the age trends as to when children come to make use
of figurative language. Children in Grades 3, 4 and 5 were asked
to provide written language samples for three different tasks—
a Composition Task, Multiple Sentences Task, and a Comparisons Task.
Pollio and Pollio found that children were able to produce a sub-
stantial number of figures of speech, both novel and frozen, as early
as the third grade.

In the Composition Task the third grade children produced a
greater proportion of figurative language than children in higher
grades. When children were asked to do a task which required them to

relate two unlike ideas (Comparisons Task), their tendency was to produce more novel than frozen figures, and this tendency increased over grade levels. The children in this study were, by usual definition, all in the stage of concrete operations, and the results show that children at this cognitive stage can and do make use of metaphoric language. However, to quote the researchers, "whether children can explain novel figures of speech before the stage of formal operations has yet to be tested . . ." (p. 200).

Pollio and Pollio (1974) discovered in their Composition Task a demand characteristic which became more pronounced at successive grade levels, and which would explain the decrease over successive grades of number of figures of speech produced. This demand characteristic, caused by a concern on the part of pupils of getting a good grade on the written composition, seemed to result in conservative, controlled use of grammar, word choice, and a concern for correct spelling. Pollio and Pollio surmise that:

> Experimentally, this may mean that a more accurate way to assess developmental trends in connected discourse would be to have children *speak their compositions* rather than write them (p. 198).

This conclusion was instrumental in the design of this study, and a technique for assessment was designed to elicit spontaneous oral language in spoken composition.

That the use of figures of speech may be more natural for children than we imagine is suggested by Sweet (1974). In a descriptive analysis Sweet used three different literary genres (description, poem and tale) written by fourth, fifth and sixth grade pupils, and concluded that similes were the most commonly used figure of speech.

Across grade levels, there were more examples of figurative language at the fifth grade than the sixth or fourth grade levels in general. Metaphor was used by writers at all three grade levels. Sweet found that genre influenced both the varieties and frequency of figurative language usage, and that "while children do use all of the elements of figurative language, there seems to be a natural growth and development of use of such language in grades four through six" (p. 50).

The influences of genre and task commented upon by both Pollio and Pollio (1974) and Sweet (1974) suggested to this researcher the need to build an instrument to look at the significance of a variety of tasks in the production of metaphoric language.

Metaphor and Oral Language: Developmental Trends

Two studies, Gardner (1974) and Gardner et al. (1974) have looked at metaphor and children's oral language. The first (Gardner, 1974) attempts to determine whether the ability to make metaphoric links can be found in the preschool child, and to determine aspects of the development of metaphoric capacity. Five pairs of polar adjectives judged familiar to preschool children were selected as the terms to be mapped onto diverse domains. The pairs were light/ dark, happy/sad, loud/quiet, hard/soft, and warm/cold. These polar pairs were considered representatives of the domains: visual (colour), visual-physiognomic (facial expressions), visual-abstract (abstract line configurations), auditory (pitches), tactile (objects felt while blindfolded), verbal-kinesthetic (a general bodily feeling expressed in words). Each pair of polar adjectives was to be matched by subjects

with a pair of elements drawn from the five domains (one domain
served as an introductory example to the task) with which the adjec-
tives were not ordinarily associated. For example, a child was shown
two colours and asked which one was light and which one dark. This
was the literal domain, and was followed by the other four domains
for the given adjective pair (two colours). Which colour is cold,
which warm; which colour is hard, which soft; which colour is happy,
which sad, and which colour is loud, which soft.

Results indicated that preadolescents were already performing
at an adult level, but Gardner notes that the adultlike performance
of the young subjects may reflect the ease of the task given. He
does indicate "that the essential capacity for metaphoric association
retains the same pattern throughout development" (p. 89).

Gardner comments that the findings are tentative and only
indicate that metaphoric facility improves with age, and informal
observations and subsequent research (Gardner et al., 1974) "indicate
that metaphoric behavior is less likely to emerge if younger subjects
are required to produce a metaphor of their own . . ." (p. 89). The
comment suggested to this researcher the need to devise a measuring
instrument which would allow children to devise their own metaphors,
and similes.

Gardner realized the limitations of the study in that meta-
phoric matches were being elicited in a controlled situation, or as
Gardner et al. (1974) state:

> Because the earlier (Gardner, 1974) study required a forced
> choice, . . . it failed to illuminate the development of the
> capacity to produce and perceive verbal figures of speech
> (p. 126).

The subsequent study (Gardner et al., 1974) required children at age levels of 7, 11, 14 and 19 years to complete a vignette and then to select one of four possible endings. The endings were actually similes, but the authors use the generic term metaphor. Eighteen short stories were devised, and subjects were asked to firstly make up their own ending for each, and then to select one of four given endings for each story. Given endings were either Literal (non-metaphoric), Conventional (metaphorically appropriate, but familiar and nonoriginal), Appropriate, and Inappropriate. Subjects' own endings were scored on the same basis as the given endings.

For metaphoric preferences Gardner et al. found there was a general shift across ages from Literal responses to Conventional responses to Appropriate responses. For metaphoric productions, an overwhelming proportion of responses at each age level were classified as Conventional.

> Wholly unexpected was the relatively large number of appropriate metaphors produced by the preschoolers: the youngest subjects formed the highest percentage of metaphors in the study (p. 133).

Except for the above-quoted finding, the results indicated a slow but steady increase with age in the number of appropriate metaphors produced in the production task. In more precise perspective, the increase is in the production of metaphoric endings, rather than metaphors per se, as the task was a sentence-completion one.

The researchers conclude that there is a regular shift towards metaphoric proficiency in both production and preference between ages 7 to 19. However, the writers then muse that:

> Perhaps in the arts, as Gombrich (1960) has argued,
> *making* precedes *matching;* accordingly, the child's pro-
> ductive capacities require separate analysis (p. 140).

It appeared to this researcher that the studies which pur-
portedly investigated children's metaphoric productions in oral
language had, in fact, analyzed children's metaphoric endings. Tasks
set the subjects were either of the sentence-completion type, where
the focus of the metaphor was given, or of the matching type where
associated commonplaces were made explicit, though diverse and polar.

This researcher was motivated, because of the restricted
nature of the metaphorical production tasks reported, to devise a
measuring instrument which would include stimuli and tasks designed
to lead subjects into spontaneous oral production of metaphoric
language. To this purpose stimuli were chosen to range from concrete
to abstract, and tasks from descriptive to associative to figurative
to metalinguistic. An essential feature of the instrument is that
only the literal referent for possible metaphoric production is
presented to the subject.

SUMMARY

The two parts of this chapter have focused on the thought and
language processes involved in the use and production of metaphoric-
associational thought and language. Both philosophical and empirical
discussion makes up the material covered in the chapter.

The first part deals with the philosophical background to
metaphoric-associational thought and language, from early philosophical
thought to recent symbolic stances. Imagination, logical thought and

creative thought are discussed in relationship to metaphoric thought and language. The development of scientific concepts in childhood is then discussed, linking Vygotsky's hypotheses with the use of metaphoric thought and logical thought.

The second part narrows the discussion to metaphoric thought and language in children, and addresses itself to the studies which have looked at the development of, use of, and exposure to figurative language in children. The lack, and limitations, of studies designed to elicit and measure metaphoric language in children's oral language are posited as the reason for this researcher's interest in the design and analysis of spontaneous metaphorical production in children's oral language.

Chapter 3

THE DESIGN OF THE STUDY

INTRODUCTION

The chapter begins by setting out the questions which have prompted the design of the study, and particularly the development of tasks and stimuli, the main instruments of the research design.

This is followed by a description of the population and sample used in the investigation, the selection process employed and the criterion for selection.

A major portion of the chapter is devoted to description of and rationale for the tasks and stimuli developed to elicit children's figurative oral language responses.

The criteria for scoring the responses are discussed, along with the need to develop appropriate categories and definitions for the similes and metaphors produced orally by children.

The chapter concludes with the procedures for administering the study, followed by a description of the statistical analyses employed to answer the research questions.

QUESTIONS ADDRESSED BY THE STUDY

The review of the literature suggested several questions to this researcher which led to the design of the study. Since the study is an exploratory and descriptive one it seemed more appropriate to pose questions rather than hypotheses which could be discussed from

analysis of the data.

The questions are followed by a short rationale describing why each question suggests significance for discussion in the study.

Question 1: Is there increased production of simile and metaphor across grade levels four, six and eight?

Studies which have looked at children's oral figurative language (Gardner, 1974; Gardner et al., 1974) have provided part of the expression for metaphoric production. One study (Gardner, 1974) showed significant differences across ages for metaphoric matches where the ages were preschool, age 7, 11 1/2 and 19. The second study (Gardner et al., 1974) showed no significant differences across ages 7, 11, 14 and 19 for conventional metaphoric productions, which formed the overwhelming proportion of productions at each age level.

Studies of children's written figurative language also sometimes have shown conflicting trends across age or grade in production of figurative language. Sweet (1974) concluded that there does not seem to be a natural growth and development of figurative language in grades four through six. Pollio and Pollio (1974) showed statistical evidence of increased production of frozen and novel figures of speech across grades three, four and five for two tasks, and a reverse trend for a third task.

In a cognitive developmental study of metaphor comprehension, Billow (1975) concluded that "younger children are less able to regularly understand figuration than older children" (p. 423). The conflicting trends described by the literature led this researcher to ask the question rather than to hypothesize a trend.

Question 2:   Is there a qualitative difference across grades four,
              six and eight of similes and metaphors produced?

As this study looks at the quality of simile and metaphor
production much differently from the other studies, it was difficult
to predict trends from the results of other studies.

Gardner et al. (1974) found a significant difference in the
number of appropriate responses produced by subjects across age groups
7, 11, 14 and 19. These appropriate responses were qualitatively
opposed to literal, conventional and inappropriate responses. In
children's written figurative language Pollio and Pollio (1974) found
that more novel figures were given by grades three, four and five for
a comparison and a multiple sentences task, while there were more
frozen figures for a composition task.

Billow (1975) found a strong age effect on proportional
metaphor comprehension across a 9-13 year old age group, and sub-
sequently hypothesized a relationship to the acquisition of formal
operations.

The fact that none of the studies qualitatively described
children's spontaneous oral production of figurative language
suggested that this question be considered in the study.

Question 3:   Will different tasks have quantitative and qualitative
              effects on the production of similes and metaphors?

The literature under review came to some fairly specific
conclusions on the effects of different tasks on figurative language
production, primarily in the written mode. Pollio and Pollio (1974)
concluded that type of task is probably the most important factor in

measuring a child's command of figurative language (p. 197). They
found that each task revealed different age trends, and that the most
obvious was the relative decrease in the number of figures produced
in the composition task (p. 198).

In another study of children's written figurative language,
Sweet (1974) found that the writing genre (description composition,
poetry, tall tales) affected both variety and frequency of figurative
language production.

This study introduces tasks which differ from those used in
the controlled oral language production studies (Gardner, 1974;
Gardner et al., 1974) and the written language studies, and therefore
differences across tasks could not be justifiably hypothesized.
However, the effects of the composition task were considered to be
cumulative of the two tasks preceding it in the design of the study.

Question 4: Will different stimuli have quantitative and qualitative
effects on the production of similes and metaphors?

Stimuli were designed and presented in such a way as to lead
from a concrete to an abstract representation of reality. From
cognitive developmental stages it appeared to the researcher that a
concrete stimulus would appeal more to children operating at a
concrete operational cognitive stage, and an abstract stimulus to
children at the formal operations stage.

Other studies, using verbal elements, could not provide the
researcher with likely trends of stimuli effect on figurative language
production. Billow (1975), studying children's comprehension of
metaphor, found that pictorial accompaniment to written metaphor

statistically improved metaphor comprehension, but that improvement was on the average only slightly over 10% of straight linguistic presentation of metaphor.

Question 5: For metalinguistic tasks is there a quantitative and qualitative difference of simile and metaphor production across grade levels four, six and eight?

Question 6: For metalinguistic tasks will different stimuli have quantitative and qualitative effects on the production of simile and metaphor?

It seemed important to design metalinguistic tasks that would find out just how many children knew the term *simile* and/or *metaphor*, and how many could spontaneously produce examples of each. Although the literature states that children from age four can spontaneously produce figurative language (Gardner, 1974; Gardner et al., 1974; Billow, 1975), it gives no indication as to when children consciously know they are producing, and can produce, a simile or metaphor verbally unassisted. The investigator is aware that at the Grade 8 level the linguistic constructs and formal analysis of simile and metaphor is contained in the language arts curriculum.

The metalinguistic tasks with examples were designed to dis-cern at what grade level the majority of children could assimilate the form of simile and metaphor and generate their own examples.

The literature gives little idea of what trends might be expected. Gardner et al. (1974) looked at children's metaphoric preferences in a simile sentence completion task, and analyzed that literal responses were most popular with the seven-year-olds,

conventional responses with the eleven-year-olds, conventional (50%) and appropriate (40%) with fourteen-year-olds, and appropriate (53%) and conventional (47%) with the nineteen-year-olds.

Billow (1975) found that younger children—ages were 5, 7, 9, 11 and 13—were less able to regularly understand figurative language than were older children.

The effect of stimuli was tentatively hypothesized as similar to that for Question 4 as previously discussed, with cognitive operational stage largely determining preference for a concrete or an abstract stimulus. However, as the three stimuli were together in metalinguistic tasks it seemed likely to the researcher that effects might be different from the three tasks that precede them, where each stimulus was used separately.

POPULATION AND SAMPLE

Eligibility for participation in the study was established by a selected criterion of intelligence as measured by the Canadian Lorge-Thorndike Intelligence Tests, Form 1. This criterion was used to control for pupils operating at the appropriate cognitive level for their grade and age, and in an attempt to ensure that the pupils had the necessary verbal abilities and thought processes required to comprehend and respond to the tasks administered them.

Scores on the Lorge-Thorndike Intelligence Tests were compiled for all children in grades four, six and eight in two neighbouring elementary and junior high schools in a central Alberta school district of approximately 4,500 pupils. The Lorge-Thorndike Intelligence Test

was selected because, in the words of Rosenbach, quoted in Buros (1972, p. 681), "the Lorge-Thorndike Intelligence Tests have gained the reputation of being among the better group tests of mental ability." The verbal and nonverbal subtests provide relatively high correlations with tests of achievement (Buros, 1972, p. 685), and the IQ's correlated moderately to fairly highly with school achievement (p. 686).

A random selection of 20 children at each grade level, with equal numbers of boys and girls, was taken from those children whose IQ scores fell within the range 110-125.

INSTRUMENTS DEVELOPED FOR THE STUDY

Tasks were designed, and stimuli chosen, which would both lead the children from a concrete to an abstract situation, and build up a foundation of descriptive, literal language from which associational and figurative tasks and language could develop.

The tasks define the genre for oral language, which are description, association and figuration. In addition to collecting the spontaneous sample, other tasks were designed to appraise the children's conscious awareness and metalinguistic knowledge of simile and metaphor.

The stimuli provide the content, referent, or main subject for children's spontaneous oral language. A pilot study was conducted to test various tasks and stimuli before final selections were made.

Tasks

It seemed necessary to design tasks with a minimum, if any, of linguistic, syntactic, semantic or associational clues which might direct children in the production of similes and metaphors.

Unlike other studies which have looked at children's metaphoric productions in oral language, the tasks given were designed not to provide the subsidiary subject for metaphoric production, or the focus for simile and metaphor.

It was up to the individual to respond to the task, by reference to the stimulus, in his/her spontaneous manner. As tasks led the child to a problem-solving situation involving associational and metaphoric thought, the child would have to create a subsidiary subject and focus while simultaneously attaching associated common-places to both main and subsidiary subjects in order to frame linguistically a simile or metaphor.

The tasks were designed to provide the following experience for the children:

a. Knowledge—attributes.

Denotative/criterial perceptions and observations to focus on such attributes as colour, shape, texture, weight, function, part/whole relationships, composition, location (Nixon, 1975).

Before the child can associate disparate objects and things, and to see and articulate relationships between them, he/she must be able to focus on and observe the attributes and parts of objects and things. The Knowledge Task fulfilled this function.

b. Association—experiential.

Associations are drawn between the stimulus and other objects/situations/experiences that the individual knows or has had. The task builds on the background of attributes, part/whole relationships, and properties to link with past knowledge and experience to establish associations, resemblances, likenesses and similarities. Associations and experiences will most often be personal, but may also be vicarious in nature.

c. Combined Language Form—figuration.

This task expands on the cognitive and linguistic requisites for knowledge of attributes and properties, and association of thought, prior knowledge and experience, allowing the child to frame metaphorical-associational thought in an oral language situation. Figurative language might sometimes, even often, be the context of the child's verbalized associated experiences.

d. Metalinguistic tasks, with and without examples, were also designed to provide a measure of children's knowledge of simile and metaphor, and of their ability to produce similes and metaphors from models.

Thus, one task was designed for each of the purposes in a-c above to form a buildup of perceptions, attributes, knowledge, associations and the application of past experience, all of which form the frame for figurative language expression. The tasks were tested in a pilot study and subsequent changes made to one task. Two tasks, one with examples and one without, were designed to tap awareness of simile and metaphor.

The Stimuli

Three stimuli were used in the study; they were selected so as to range from concrete representation to abstract representation, and all involved similarity of content, namely animals. The animal theme was chosen because children at each of the grade levels studied have a wide interest in, and liking for, animals. Appendix B includes photographs of the stimuli used in the main study.

Stimulus A: A large, stuffed toy dog.

Of the first order of reference; it is concrete, three dimensional, and palpable.

Stimulus B: A large photograph/picture of a wild deer, in natural
        Fall surroundings.

Of the second order of reference; it is two dimensional, pictorial, but being a photograph, it is referentially "real."

Stimulus C: A large art reproduction, in abstract style, of three
        giraffes in an abstract setting being pondered by a small boy.
        The title of the painting by G. Roland Smith is Boy with
        Giraffes.

Of the third order of reference; it is two dimensional, an artistic representation, but is interpretive and abstracted from the "real."

The Instructions for the Tasks

The first three tasks were given in order for each stimulus, beginning with Stimulus A. The instructions for the tasks, as they appear in the main study, follow.

Task 1:   Knowledge Task

Denotative/Criterial Responses.

_____ (child's name), I want you to describe this

_____ (stimulus, e.g. dog). Pretend that you are

describing it to someone from outer space, who has just

landed on earth, and this space creature has never seen a

_____ (stimulus) before. You can pick up or touch the

_____ (stimulus) if you want.

Task 2:   Association Task

The association task is designed to change the focus of the

child's thinking from the purely concrete responses required

by the first task, to associative/relative thought processes

which might draw on the child's past experiences.

Now I'm going to show you the _____ (stimulus) again,

and this time I want you to give me words, ideas, and thoughts

that come straight into your head when you see it. What

words, ideas, and thoughts come into your mind right away?

Give me the words, ideas and thoughts that have popped into

your head.

The wording for this task was decided on after an earlier

version, used in the pilot study, had proved to give subjects

the linguistic cue of *remind* which they used in their

responses.

Task 3:   Figurative Task.

Connotative/Affective Responses.

_____ (child's name), now I'm going to ask you to give

me a story about this _____ (stimulus). You can choose

to make up a story, or pretend that it's your personal pet.

To make your story really interesting you might talk about

what pops into your head when you look at and touch the

_____ (stimulus). You might remember something you

have done, or seen, or heard of, or read, or know about from

before. You might even talk about how it makes you feel,

or how you feel about it.

Tasks 4 and 5 were presented after the first three tasks had

been given sequentially for all stimuli. Tasks 4 and 5 were given

with all three stimuli in front of the child.

Task 4:   Metalinguistic Task.

(a) Here are all three things again. This time I want you

to give me similes for any one of the things, or for

two of them, or for all of them. Can you give me

similes for this one, or this one, or for all three of

these things?

(b) With the three things again, can you give me metaphors

for any one, or for two, or for all the three things?

Task 5:   Inductive Metalinguistic Task.

Examples of similes (a) and metaphors (b) were presented to

the child on file cards (Appendix C). The researcher dis-
cussed with the child the salient features of each which
made the example a simile or metaphor, such as main subject,
subsidiary subject, focus, and associated commonplaces.

(a) Here are some cards with some examples of similes.
    Notice that LIKE or AS joins together the thing that is
    described, and what other thing it is compared to.

    After discussion of the similes, and after the child
    had time to look over the examples, the cards were
    turned over and the question asked:
    Now, can you give me similes for the three things?

(b) Here are some more cards, this time with examples of
    metaphors. You'll notice that metaphors say that some-
    thing is the same as something else, not just like
    something else as similes do.

    The examples were discussed with each pupil, noting why
    and how the underlined words are used metaphorically;
    e.g. The girl flew over the fence and escaped from the
    charging bull. Birds fly, but we don't usually say that
    girls fly, but when "flew" is used in this way, it
    suggests how high and swiftly the girl jumped over the
    fence.

    After the pupil had time to look carefully over the
    examples, the cards were turned over and the question
    posed:

Now, can you give me metaphors for the three things?

Examples of Simile and Metaphor Used in Task 5

Task 5(a):   Grades 4, 6 and 8.

Similes

an oven is as hot <u>as</u> fire

this cloud is fluffy <u>like</u> whipped cream

the sun set slowly <u>like</u> a sinking red ball

John walked as slow <u>as</u> a tortoise.

Task 5(b):   Grades 4 and 6.

Metaphors

She is <u>bursting</u> with joy.

Hair is <u>spaghetti</u>.

She has <u>rosy</u> cheeks.

The ship sailed <u>lazily</u> out of sight.

Task 5(b):   Grade 8.

Metaphors

John is a <u>tortoise</u>.

The girl <u>flew</u> over the fence and escaped from the

charging bull.

It was a <u>happy</u> book.

The ship sailed <u>lazily</u> out of sight.

The examples provided an equal number of LIKE and AS varieties of simile, and a wide variety of types of metaphor was made available by using an example of each grammatical form; i.e. noun, verb, adjective and adverb, after Brooke-Rose (1958).

SCORING THE RESPONSES

Prior to the conducting of the study the researcher had adapted analytical scales with which to score the responses. These original scales included a concrete-abstract cognitive categorization as developed by the researcher, and alternately a grammatical analysis as suggested by a writer who analyzed literary use of simile and metaphor (Brooke-Rose, 1958). The Pollio and Pollio (1974) study on children's written figurative language suggested another means of analysis, as did a psychological study of metaphoric use (Anderson, 1964). The original scales for analysis are discussed and detailed in Appendix A.

However, after collection and transcription of the data the researcher concluded that none of the original analytic scales was appropriate to the similes and metaphors collected from children's <u>oral</u> language. This led the researcher to develop categories and definitions based on the varieties and styles of simile and metaphor elicited from the subjects in the study.

All the examples used to illustrate the categories are from children's oral language which make up the data.

<u>Categories for Analysis of Simile and Metaphor Production
in Children's Oral Language</u>

<u>TRUE SIMILE</u>

Meets all the requirements for simile as in the definition of simile in Chapter 1.

<u>PARTIAL SIMILE</u>

Occurs when the focus is omitted, it being implied with the consequence that it is often ambiguous. The indefinite "sort of" is

sometimes used where the focus would properly be used.

      egs. The ears are sort of <u>like</u> leaves. (deer)

           He's got sort of a coat <u>like</u> licorice. (deer)

           The dog's tail is <u>like</u> an icecream cone.

           The horns are <u>like</u> twigs on a tree. (deer)

           The giraffe's tail is <u>like</u> a whip.

           The trees are <u>like</u> a pane of glass. (painting)

           The dog . . . seems <u>like</u> snow.

None of these similes signify how the main and subsidiary subjects are alike; the associated commonplace is omitted.

Occurs also when the subsidiary subject is indefinite, vague, or ambiguous.

      eg. The dog has a red bowtie <u>like</u> a red ball or something

           like that.

INCOMPLETE SIMILE

The simile is left unfinished by omission of the subsidiary subject.

      The deer's antlers are as strong as _____

      The caribou's (deer's) eyes are as round and black as _____

      These were the only Incomplete Similes to appear in the study.

ATTENUATED SIMILE

Is where the simile is extended or attenuated by the focus becoming a lengthy causal reason why the comparison is appropriate. Where a comparison is made between another stimulus (a Restricted Simile), but the simile is extended to give a lengthy reason for

appropriateness, it has been labelled an Attenuated Simile because the explicitness of the focus shows a lack of understanding of simile.

egs. The giraffe is like the deer, because they are both bigger.

The dog is like the deer, because it has four legs, a tail, etc.

The deer is like a giraffe because it has short fur too.

Attenuated Similes show a lack of understanding of the purpose and use of simile, and the tendency to make the expression literal rather than leaving it metaphoric. "Because" usually begins the extended focus.

egs. The trees are like Christmas time, because they're red . . .

The dog is like a bear, because they both have black fur.

The dog is sort of like a rabbit, 'cause they're both fluffy.

The deer is like a fairy because it's so graceful.

The deer is like a man, because it's alive, etc.

RESTRICTED SIMILE

(1) Is where one stimulus (dog, deer, painting of giraffes) is compared to another stimulus, so that common attributes of the two stimuli are compared using a focus appropriate to both.

egs. The deer's tail hangs like the dog's ears do.

This (dog) is as active as a deer.

The giraffe's eyes were as big and shiny as those of

a startled dog.

The red ribbon around his (dog's) neck is like the
red in the painting.

The deer has a small tail like this dog.

The giraffes run fast like the deer.

The giraffe has hooves like the deer.

(2) Is where a comparison is made between two attributes of
the same stimulus.

egs.   His (dog's) body is as furry as his legs.

The white on his (dog's) legs is like the white on his
skin.

The trees are tall as giraffes.   (Both things are in
the same stimulus, and are the same height.)

The boy's hair is like the giraffe's skin.   (Both
things in the same stimulus.)

(3) Compares the stimulus or main subject to another of the
same species; i.e. the main subject and the subsidiary subject are
the same or almost the same.

egs.   The dog is like a real dog.

This dog is as cute as a real dog would be.

. . . and a tail, not like ours

A baby boy deer has antlers like his father.

The deer was just like an elk.

The deer has a fat stomach like a fat person.

ASSOCIATIONAL LINK

An expression which states an association between the main

subject and a subsidiary subject, using an associational bridging word such as "resemble," "reminds," "appearance," "think," "represents."

egs. The colours resemble some dogs.

His (dog's) mouth reminds me of a teardrop.

It (deer) has antlers that have an appearance to be branches.

I think of his body as a horse's.

The yellow part makes me think of lemons.

. . . and these are to represent steps at the bottom of the picture.

The dog represents the night and the day.

TRUE METAPHOR

Meets all the requirements for metaphor as in the definition of metaphor in Chapter 1.

FROZEN METAPHOR

Involves frozen figures which exist as separate lexical entries in a current standard dictionary, such as The Concise Oxford Dictionary, Fifth Edition, 1964.

Frozen metaphors are no longer novel or original, appear quite often in children's oral language, and are used by a number of children, so that their use is quite widespread.

egs. bushy tails

very keen eyesight

sandy-coloured fur

The little boy watched, with his eyes glued on them.

The dog flies out with a bark.

Leaves <u>float</u> softly like feathers.

<u>beady</u> eyes

has a <u>puffy</u> nose

he just <u>races</u> around the house, never stopping.

Frozen Metaphor includes cliches, which are ready-cast, or stereotyped expressions, prefabricated phrases, "which saves a writer the trouble of inventing a fresh new way of saying something" (Atlick, 1960, p. 101).

egs. Dogs are man's best friend.

This is real hard—to make up a story out of thin air.

PSEUDOMETAPHOR

(1) The subsidiary subject is made the same, or very similar to, the main subject, so that the expression is hardly novel, and the associated commonplace(s) is/are very limited, and often made explicit.

egs. The red ribbon is a red string.

The giraffe's eyes are girl's eyes.

The king's crown is a giraffe's crown.

(2) When the focus is made tenuous, and the associated common-places made indefinite by the use of "sort of," "kind of," "part of," etc.

egs. There's trees in there, sort of jagged.

Then up in the sky . . . is a sort of great big marble.

The giraffes have a long neck, and kind of a crown on their head.

(3) When the focus is extended to give a lengthy reason why the comparison is appropriate. "Because" often begins the extended

focus, as in Attenuated Similes.

    egs. The dog is a machine, because it barks.

           The moon is an orange, because it's like an orange.

           Antlers are branches, because they both have the same

           shape and colour.

Like Attenuated Similes, Pseudometaphors show a lack of under-standing of metaphoric function, because the user makes the associated commonplaces explicit, and the metaphor quality is consequently lost.

Validity of Category Definitions

After definitions for analysis of simile and metaphor had been generated by the researcher, they were presented to two independent persons—professors of Elementary Education, Reading and Language—for validation and assessment of appropriateness. As a result minor changes were made in the titles of two categories to make them more appropriate. Pseudosimile was changed to Attenuated Simile so as to avoid being confused with Pseudometaphor, and Comparative Simile was changed to Restricted Simile, as it was agreed that all similes (and metaphors) involve a comparison.

PROCEDURES

The researcher spent a few introductory minutes with each child placing him/her at ease before presentation of the stimuli and tasks. Each child was assured that the tasks in no way presented a test situation, that there was no connection between the study and the child's academic assessment in school, and that the researcher merely wanted to find out how children of his/her age described things.

Each child was assured that there could be no wrong answers, and was encouraged to respond to each task in the best and fullest way he/she was able.

Presentation of the tasks to individual children took from 25 to 45 minutes. Tasks 1, 2 and 3 were presented in that order for each stimulus beginning with Stimulus A, then Stimulus B and C. After Stimulus C had been presented with all three tasks, Tasks 4a, 4b, 5a and 5b were given, in that order, with all three stimuli before the child.

The researcher tape recorded all oral responses, and from the audio tapes transcribed all simile and metaphor responses on individual data sheets. Group data sheets for grade, task and stimulus were then made up from the individual sheets, and responses were scored and marked on these.

Inter-Rater Reliability of Scoring

Once the categories and definitions for analysis had been validated, and the researcher had scored all responses, four independent raters scored all responses of a boy and girl at each grade level, randomly selected and representing 10% of the study sample. The raters were comprised of lecturers and graduate students in Elementary Education, language arts.

Agreement between scorers, including the researcher, was computed by using the Arrington formula as employed by Feifel and Lorge in their 1950 study. Responses in each observer's scoring that agree with the other's (which, in effect, doubles the agreements) is divided by this total plus the disagreements, i.e.

$$\frac{2 \text{ x agreements}}{(2 \text{ x agreements}) + \text{disagreements}} .$$

In terms of percent agreement, the range went from 77 to 91 for the responses scored (Table 1). The average agreement of 85% indicates a satisfactory reliability of categorical scoring.

ANALYSIS OF THE DATA

After categorization of the simile and metaphor responses for all tasks, it appeared that the spontaneous oral language tasks (Tasks 1, 2, 3) should be analyzed apart from the metalinguistic tasks (4a, 4b, 5a, 5b).

A three-way analysis of variance was chosen to analyze the frequency of simile and metaphor responses to Tasks 1, 2 and 3. This allowed for analysis of each variable grade, task and stimulus, and interaction between the three factors. Factor A was grade with three levels four, six and eight, Factor B was task with three levels one, two and three, and Factor C stimulus with three levels A, B and C.

The three-way analysis of variance also allowed for qualitative analysis of simile and metaphor responses, after a program had been run to produce ratios of true simile or metaphor to all simile or metaphor responses.

Two-way analyses of variance were utilized to analyze the responses to the metalinguistic tasks. Since task was not a variable, a two-way analysis of variance was run for each Task 4a, 4b, 5a and 5b. Factor A was grade with three levels, Factor B stimulus with three levels.

TABLE 1

Inter-Rater Reliability of Categorization of Responses,
Calculated by Arrington Formula
Raters A, B, C, D, E

Between Raters	No. of Agreements	No. of Disagreements	% Agreement
AB	66	21	86
AC	81	30	84
AD	85	25	87
AE	77	33	82
BC	73	20	88
BD	77	17	90
BE	68	28	83
CD	101	19	91
CE	72	38	79
DE	69	41	77
Means	76.9	27.2	84.7

Qualitative analysis of responses used ratios of true simile or metaphor to all simile or metaphor responses. A further four two-way analyses of variance were run, which also allowed interaction between Factors A and B to be analyzed.

Altogether four three-way analyses of variance were run to analyze quantitative and qualitative production of simile and metaphor for Tasks 1, 2 and 3, and therefore to answer Questions 1, 2, 3 and 4. The eight two-way analyses of variance analyzed quantitative and qualitative oral production of simile and metaphor for the four meta-linguistic tasks, and answer Questions 5 and 6.

SUMMARY

This chapter has discussed in detail the questions to which the study is addressed, with reference to the significance of the questions to the development of simile and metaphor in children's oral language.

In detailing the design of the study it was pointed out that a significant part of the research instrument was the development of tasks and stimuli to elicit children's figurative oral language.

Another major portion of the chapter dwelt on the necessity for the development of an appropriate analytic scale for analysis of the similes and metaphors transcribed from children's oral language. This led to an explanation of the statistical methods employed in analyzing the data and answering the research questions.

Appendix A discusses in detail the original techniques of analysis that had been adapted by the researcher, but discarded because

of their inherent limitations.

Chapter 4

THE FINDINGS

INTRODUCTION

This chapter discusses the data and interprets the results of the analysis of children's oral presentation of simile and metaphor.

The data were analyzed both quantitatively and qualitatively and according to language situations determined by tasks. Therefore Tasks 1, 2 and 3 which were used to elicit spontaneous oral language are treated by three-way analyses of variance for both quantity and quality of simile and metaphor productions. Tasks 4a, 4b, 5a and 5b, being metalinguistic tasks, are treated by the application of two-way analyses of variance for both quantity and quality of simile or metaphor. The discussion and interpretation of the data follow in the same order as the analysis as described above.

QUANTITATIVE PRODUCTION OF SIMILE AND METAPHOR:
TASKS 1, 2, 3

Tables 2, 3 and 4 contain data basic to the discussion of the three spontaneous oral language tasks. Apart from frequencies, the tables provide information on respondents to the tasks, and numbers of true similes and metaphors. A three-way analysis of variance was used to assess the quantity of similes produced in Tasks 1, 2 and 3, the tasks designed to produce spontaneous descriptive, associative, and figurative language.

Table 2

FREQUENCY OF SIMILE, NUMBER OF RESPONDENTS AND RESPONSES PER RESPONDENT:
TASKS 1, 2, 3

Number of Similes

	Task 1			Task 2			Task 3		
Stimulus	A	B	C	A	B	C	A	B	C
Grade 4 N = 20	2	8	16	1	4	9	2	2	1
Grade 6 N = 20	3	12	16	7	2	10	7	1	5
Grade 8 N = 20	6	12	17	3	5	9	0	1	6

Number of Respondents (Responses per Respondent)

	Task 1			Task 2			Task 3		
Stimulus	A	B	C	A	B	C	A	B	C
Grade 4	2(1)	6(1) 1(2)	5(1) 1(2) 3(3)	1(1)	2(1) 1(2)	4(1) 1(2) 1(3)	2(1)	2(1)	1(1)
Grade 6	1(1) 1(2)	3(1) 3(2) 1(3)	7(1) 2(2) 1(5)	3(1) 2(2)	1(2)	2(1) 2(2) 1(4)	4(1) 1(3)	1(1)	1(1) 2(2)
Grade 8	4(1) 1(2)	6(1) 1(2) 1(4)	8(1) 1(3) 1(6)	3(1)	1(1) 1(4)	3(2) 1(3)	--	1(1)	4(1) 1(2)

Table 3

FREQUENCY OF METAPHOR, NUMBER OF RESPONDENTS AND RESPONSES PER RESPONDENT: TASKS 1, 2, 3

	Number of Metaphors									Number of Respondents (Responses per Respondent)								
Task	1			2			3			1			2			3		
Stimulus	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Grade 4 N = 20	4	2	7	4	2	2	0	2	3	4(1)	2(1)	5(1) 1(2)	4(1)	1(2)	2(1)	--	2(1)	3(1)
Grade 6 N =20	3	4	3	1	2	5	5	1	7	3(1)	2(1) 1(2)	3(1)	1(1)	2(1)	1(1) 2(2)	2(1) 1(3)	1(1)	4(1) 1(3)
Grade 8 N = 20	0	3	3	0	1	6	2	2	2	--	3(1)	3(1)	--	1(1) 1(2) 1(3)	1(1)	2(1)	2(1)	2(1)

Table 4

FREQUENCY OF TRUE SIMILE AND TRUE METAPHOR:
TASKS 1, 2, 3

	Number of True Simile									Number of True Metaphor								
Task	1			2			3			1			2			3		
Stimulus	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Grade 4 N = 20	0	5	4	1	1	6	2	1	1	–	2	3	1	2	2	–	1	–
Grade 6 N = 20	2	4	5	2	1	6	–	–	3	1	1	1	–	–	4	1	–	3
Grade 8 N = 20	1	2	5	–	1	2	–	1	2	–	2	1	–	1	5	–	2	2

The three main factors in the analysis were grade (A), task (B), and stimulus (C), each with three levels. The results of this analysis are shown in Table 5.

There was a significant interaction (p < .01) between factors B and C, task and stimulus. Table 6 gives cell means of simile responses, while Figure 1 illustrates the nature of this interaction.

Although stimuli have an effect on the different tasks in increased mean frequency of similes, the effects are of a different nature for each task. The concrete stimulus (A) produced almost the same frequency of similes for each task, while Stimulus B was only effective in increased simile production in conjunction with Task 1. With Task 3 the deer photograph (B) actually produced fewer simile responses than it did with the first task.

The abstract stimulus (C) was very effective in increased simile production over the other stimuli for Task 1, and to a lesser extent for Task 2. There was no difference in simile production for the abstract stimulus in relation to Task 3.

Even though both task and stimulus produced significant main effects, interaction between the two factors produced differential effects. Only in conjunction with Task 1 was the stimulus dimension of concrete-abstract consistently effective in increased simile production. With Task 2 the dimension was effective only with the abstract stimulus, and with Task 3 the stimulus dimension had no effect.

The effects of stimuli were most apparent between tasks for the abstract stimulus, which was the most effective stimulant for

Table 5

THREE-WAY ANALYSIS OF VARIANCE (GRADE, TASK, STIMULUS) FOR QUANTITY OF SIMILE RESPONSES

Source	s.s.	df	m.s.	F	p
Between Subjects	48.526	59			
A	1.115	2	0.557	0.67	0.516
Subjects Within Group	47.411	57	0.832		
Within Subjects	244.444	480			
B	12.337	2	6.169	8.84	0.000**
AB	0.519	4	0.130	0.19	0.945
B x Subjects WG	79.589	114	0.698		
C	10.070	2	5.035	11.71	0.000**
AC	0.685	4	0.171	0.40	0.809
C x Subjects WG	49.022	114	0.430		
BC	5.730	4	1.432	3.88	0.005**
ABC	2.215	8	0.277	0.75	0.648
BC x Subjects WG	84.278	228	0.370		

Note. Factor A – Grade
　　　　Factor B – Task
　　　　Factor C – Stimulus

** Significant at the .01 level

Table 6

CELL MEANS OF SIMILE RESPONSES FOR INTERACTION
BETWEEN TASK AND STIMULUS

STIMULUS	A	B	C
TASK 1	0.183	0.517	0.817
2	0.183	0.183	0.467
3	0.150	0.067	0.200
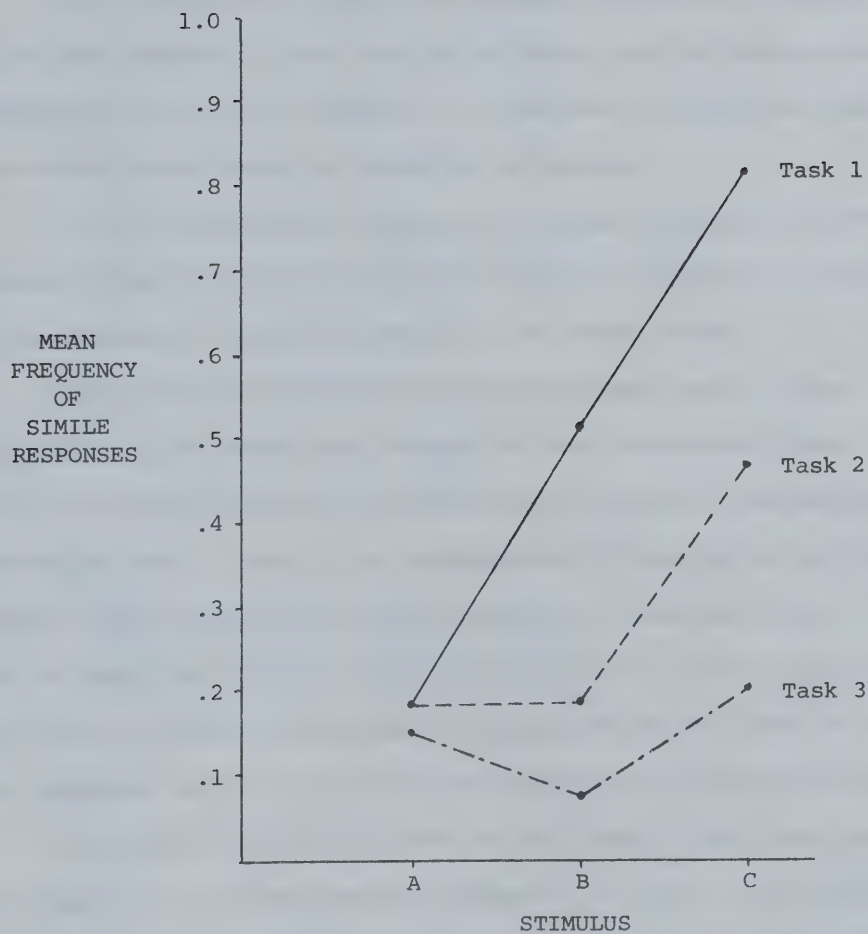
Figure 1

INTERACTION OF TASK AND STIMULUS FOR MEANS
OF SIMILE RESPONSES
N = 60

simile production for all tasks, and which produced four times as many simile responses for Task 1 as for Task 3. It appears that an abstract stimulus in association with a descriptive task is the most successful combination for the production of similes.

The interaction of tasks and stimuli leads into a discussion of the main effects of both task and stimulus, both of which proved statistically significant (Table 5). There was no significant difference across grade levels in production of simile.

In all three grades together the children produced far more similes in Task 1 than in either Tasks 2 or 3, with Task 3 eliciting the least number of simile responses of the three tasks.

The declining production of similes across Tasks 1-3 was unexpected, as the tasks were designed to lead the subject from a descriptive/denotative task to an association task to a composition/ connotative task. Clearly, the descriptive/criterial/attribute task elicited significantly more simile responses at each grade level. This might be explained either by the directiveness of the first task which made clear the response expected, or perhaps by the fullness of this first response which left little to be added in the subsequent tasks.

The effect on simile production was highly significant across the dimension of concrete-abstract stimuli ($p < .01$). This tendency to increased simile production across stimuli was expected because of the range in stimuli from concrete to abstract representation.

The significance across stimuli was also significant in the production of metaphor (Table 7, $p < .05$), with the quantitative differential showing an increase across the concrete-abstract dimension.

Table 7

THREE-WAY ANALYSIS OF VARIANCE (GRADE, TASK, STIMULUS) FOR QUANTITY OF METAPHOR RESPONSES

Source	s.s.	df	m.s.	F	p
Between Subjects	12.415	59			
A	0.404	2	0.202	0.96	0.390
Subjects Within Group	12.011	57	0.211		
Within Subjects	82.889	480			
B	0.115	2	0.057	0.33	0.723
AB	0.652	4	0.163	0.92	0.453
B x Subjects WG	20.122	114	0.177		
C	1.337	2	0.669	3.36	0.040*
AC	0.230	4	0.057	0.29	0.885
C x Subjects WG	22.656	114	0.199		
BC	0.119	4	0.030	0.19	0.944
ABC	2.048	8	0.256	1.64	0.115
BC x Subjects WG	35.611	228	0.156		

Note. Factor A – Grade
       Factor B – Task
       Factor C – Stimulus

* Significant at the .05 level

As this tendency is evident for both simile and metaphor production, it can be explained that the less known the stimulus or thing, the more the describer might be likely to use analogical thought and language to explain and describe the referent. This predilection for figurative language, and its concomitant, associational thought, might be operative when an unfamiliar and new concept, thing, stimulus or idea, is met.

There were no significant differences across grades or tasks for metaphor production, and there were very few metaphor responses in total. However, task was significant in production of similes. Perhaps the nature of the task can partially explain the large number of similes for Task 1.

The first task asked each child to describe each stimulus as if he/she was describing the thing to someone from outer space who had never seen the stimulus, or anything like it, before. Clearly then the child was being asked to describe a known and present object or thing to an audience to whom all stimuli were alien and unknown. The children would therefore search for associated commonplaces, or analogical referents, likely to be cognized by both himself/herself and the audience. When verbalized these analogies emerge as similes, partial similes, restricted similes, associational links, and to a small extent, metaphors and pseudometaphors.

Children are using similes to explain and describe things which are unfamiliar and new (to another person, or audience) by tagging criteria of the referent or stimulus to concepts which are embedded. The child assumes that the associated commonplaces or the compared

concepts are cognizable by the recipient. The success of the descrip-
tion and the communication will depend on the aptness of analogies,
and the degree of assumption of common conceptualizations will depend
on the egocentrism of the explainer or describer.

<div align="center">
QUALITATIVE PRODUCTION OF SIMILE AND METAPHOR:
TASKS 1, 2, 3
</div>

Qualitative analysis of simile and metaphor responses was
possible by using a ratio of true similes to all similes produced
by each subject, and true metaphor to all metaphors produced per child.
Ratio simile ($\frac{TS}{S}$) and ratio metaphor ($\frac{TM}{M}$) are terms also used to
describe the qualitative analysis of simile and metaphor productions.

Likewise for all simile responses, though there was no
significant difference across grade levels in quality of simile
(ratio simile), there were significant differences across tasks and
stimuli (Table 8). Looking at the task difference, if computations
are made utilizing data in Tables 2 and 4, the ratio of true simile
to all simile responses for Task 1 is .30, for Task 2, .40 and for
Task 3, .40.

Since Task 1 elicited 92 simile responses, compared to 50
responses to Task 2 and 25 to Task 3, children were at least twice
as fluent in simile production in Task 1 compared to the other tasks.
Since the ratio is identical for Tasks 2 and 3, the significant
difference occurs between Tasks 1 and 2.

It would appear that as children are more fluent in their oral
language there is a tendency to produce many more similes, though
relatively fewer similes are true varieties. In Tasks 2 and 3, where

Table 8

THREE-WAY ANALYSIS OF VARIANCE (GRADE, TASK, STIMULUS) OF RATIO OF TRUE SIMILE
TO ALL SIMILE RESPONSES

Source	s.s.	df	m.s.	F	p
Between Subjects	4.485	59			
A	0.109	2	0.055	0.71	0.450
Subjects Within Groups	4.375	57	0.077		
Within Subjects	30.930	480			
B	0.586	2	0.293	3.20	0.045*
AB	0.056	4	0.014	0.15	0.962
B x Subjects WG	10.445	114	0.092		
C	0.696	2	0.348	6.91	0.001**
AC	0.050	4	0.013	0.25	0.910
C x Subjects WG	5.735	114	0.050		
BC	0.369	4	0.092	1.70	0.152
ABC	0.590	8	0.074	1.36	0.217
BC x Subjects WG	12.403	228	0.054		

Note. Factor A – Grade
       Factor B – Task
       Factor C – Stimulus

** Significant at the .01 level
* Significant at the .05 level

simile production was respectively half and one-quarter that of Task 1, there is likely a more conscious, controlled use of simile, which results in a relatively greater number of true similes. There was no significant difference across tasks for ratio metaphor $(\frac{TM}{M})$ and there were very few metaphors produced.

As for ratio simile $(\frac{TS}{S})$, there was also a significant difference across stimuli for quality of metaphor responses (Table 9). The same qualitative differential was evident across stimuli for both simile and metaphor responses, with Stimulus A having the lowest ratio, and Stimulus B and C having similar ratios at least double that of the first stimulus (Table 10).

It would seem as though children are using metaphoric thought and language more consciously, or even consciously as compared to unconsciously, for discussing and describing the more abstract stimuli as opposed to the concrete stimuli. Because metaphoric thought and language is a more conscious, possibly even deliberate process for abstract referents, children might be linguistically more exacting and precise as they attempt to describe and discuss the abstract stimulus in associational terms that are likely to be appropriate and meaningful to the listener or audience.

All statistical analyses showed highly significant differences across stimuli: simile responses, metaphor responses, ratio simile $(\frac{TS}{S})$, and ratio metaphor $(\frac{TM}{M})$. It would appear that stimulus is the single most powerful instrument in eliciting not only quantity of metaphoric language, but quality also. Furthermore, the abstract stimulus produced the greatest number of similes and metaphors, while

Table 9

THREE-WAY ANALYSIS OF VARIANCE (GRADE, TASK, STIMULUS) OF RATIO OF TRUE METAPHOR
TO ALL METAPHOR RESPONSES

Source	s.s.	df	m.s.	F	p
Between Subjects		59			
A	3.279	2	0.013	0.22	0.800
Subjects Within Group	0.026	57	0.057		
	3.253				
Within Subjects		480			
B	21.704	2	0.011	0.27	0.765
AB	0.022	4	0.027	0.66	0.624
B x Subjects WG	0.107	114	0.041		
	4.631				
C	0.519	2	0.260	4.01	0.021*
AC	0.194	4	0.049	0.75	0.560
C x Subjects WG	7.379	114	0.065		
BC	0.120	4	0.030	0.80	0.523
ABC	0.199	8	0.025	0.66	0.724
BC x Subjects WG	8.533	228	0.037		

Note. Factor A - Grade
       Factor B - Task
       Factor C - Stimulus

* Significant at the .05 level

Table 10

RATIO SIMILE AND RATIO METAPHOR FOR EACH STIMULUS A, B, C:
ALL GRADES, ALL TASKS
N = 60

Stimulus	A	B	C
Ratio Simile	.16	.58	.55
Ratio Metaphor	.19	.34	.38

qualitatively the two more abstract stimuli produced approximately equal qualitative levels of simile and metaphor.

The tendency for children and adults to use metaphoric thought and language when making the abstract comprehensible in terms of ordinary experience has been noted by Altick (1960), and the employment of metaphoric thought when confronted by a new concept or thing is argued by Richards (1938), Newell et al. (1964), and Lewis (1962). The highly significant increase across stimuli tends to support the notion that when the child is faced with an abstract, unfamiliar and unusual stimulus, he/she will employ metaphoric thought to cognize the stimulus, and metaphoric language to explain the stimulus verbally.

Summary: (a) The Task Factor

As noted in earlier discussion, the significant differences across tasks showed greater simile and metaphor production for the first (description) task, decreasing over the association task and least for the third, or composition, task. This finding tempts the question as to why the composition/storytelling task should elicit the least number of similes and metaphor responses.

Pollio and Pollio (1974) found that in their study of the development of figurative language in children's writing, the composition task resulted in a decrease in the number of figures of speech produced over grades. They believed that a demand characteristic was largely responsible, that of concern for getting a good grade, and that having the children speak their compositions rather than write them might remove the demand characteristic. The results

of this study largely showed the same tendency in that the composition task, although an oral language task, produced relatively fewest similes and metaphors of all tasks.

The spontaneous oral language situation in which the composition task was presented and responded to largely deletes a demand characteristic. It would seem as though the children, not faced with a description of an abstract or unfamiliar stimulus or thing, are not consciously aware of the need for associational-metaphoric language, and adopt a casual, personal, conversational style of oral language which, although poetic rather than transactional, to use Britton's (1971) terms, is very sparsely populated with similes and metaphors. It is likely that metaphoric thought and language is not a regular feature of children's imaginative, fictional, and storytelling mode of oral language, but that it does play a significant role in oral language which is transactional, descriptive, denotative and relatively impersonal. This does not suggest that the capacity for metaphoric thought and language is not present, as the analysis of Tasks 4 and 5 elucidated.

Summary: (b) Number of Respondents

In terms of numbers of respondents or producers of simile or metaphor, and number of responses or productions per subject, some children are clearly very productive and consistent in their use of simile and/or metaphor across tasks and particularly across stimuli. Some respondents produced as many as four, five and even six similes per cell (a given task for a given stimulus—see Table 2), while most respondents contributed only one simile per cell.

For metaphor production, few respondents gave more than one metaphor for any given cell, while the maximum number of metaphors given by one child was three (Table 3). Some children failed to give a simile or metaphor at all. Because of the great disparity between children in their production of simile and metaphor—from six similes for one cell to none for the entire grid—it is misleading to analyze average responses or productions per subject.

In contrast, in Tasks 5a and 5b every subject contributed to at least one stimulus, and a large number of respondents produced more than one simile or metaphor per cell (i.e. for each stimulus).

Examples from each grade level for Tasks 1, 2 and 3 and each stimulus follow. Typical responses from a wide range of subjects include true similes and other qualitative levels, true metaphor and frozen metaphor. Numbers in parentheses indicate the subject giving the response.

<u>Grade 4</u>

Task 1

Stimulus A:

He's sort of a coat like   A bushy little tail (#57)
licorice. (#58)

Stimulus B:

with long sticky legs,   and some deer have little pom-
like sticks (#54)   poms for tails (#43)

Stimulus C:

There's the sky, it's dark   and the giraffes are all
like night. (#51)   decorated (#54)

Task 2

Stimulus A:

> His eyes look like two big   raindrop tongue (#54)
> round beady things looking at
> you. (#50)

Stimulus B:

> His legs look like plain   and coal-black hooves (#55)
> ordinary sticks. (#50)

Stimulus C:

> Their antlers are fuzzy, they   elbows for leges (#57)
> feel like velvet. (#50)

Task 3

Stimulus A:

> Jet wasn't as good as
> Flash, he didn't listen
> very much . . . (#42)

Stimulus B:

> These people were camping   and two coal-black eyes (#55)
> out in a desert-like
> place. (#57)

Stimulus C:

> Makes you feel like you're   and the sun was just peeping
> in a desert-like place.   through the trees (#44—Frozen
> (#57)   M.)

Grade 6

Task 1

Stimulus A:

> and a mouth that looks   has a puffy nose (#34—Frozen M.)
> like a carrot (#28)

Stimulus B:

> he's got big antlers   It has prong-type antlers on the
> that look like forks (#28)   top of its head (#21)

Stimulus C:

> Looks like the branches have   They all have crowns on their
> something like cloth hanging   heads. (#27)
> over them (#27)

Task 2

Stimulus A:

> His mouth reminds me of a   It's got a fluffy tail (#37—
> teardrop. (#35—Associa-   Frozen M.)
> tional Link)

Stimulus B:

> The antlers look like   sandy-coloured fur (#21—Frozen
> branches. (#33)   M.)

Stimulus C:

> They look like a serpent   Nets over the trees (#27)
> with their long necks . . .
> (#34)

Task 3

Stimulus A:

> It looks like ours, because   When it comes to our house, it
> our dog's tail sticks up   just dances in front of my mom.
> (#26—Attenuated S.)   (#30)

Stimulus B:

> This one looks like a certain we heard this scuffling in the
> one we saw on the way to   bushes (#25—Frozen M.)
> Jasper. (#26—Restricted
> S.)

Stimulus C:

> They just looked strange,   three tall giraffes with their
> like a being from another   necks winding together . . .(#31)
> world. (#31)

Grade 8

Task 1

Stimulus A:

    black and white eyes, sort
    of like buttons (#61)

Stimulus B:

    and his feet are shaped   . . . because when it flashes its
    like triangles (#12)   tail it shows white. (#14)

Stimulus C:

    The moon is round like a   The sun is seeping through the
    planet. (#3)   trees. (#11)

Task 2

Stimulus A:

    he resembles something of
    a Dalmation.   (#1)

Stimulus B:

    his horns look like   He isn't very frightened, or
    hands . . . fingers.   his tail would be flashing up
    (#14)   and down. (#1)

Stimulus C:

    They look like stained   . . . the maze of legs that are
    glass. (#14)   there . . . (#2)

                                Shapes that are . . . mean.   (#3)

Task 3

Stimulus A:

                                  This is real hard—to make up a
                                  story out of thin air. (#19—
                                  Frozen M.)

Stimulus B:

    You can see them prancing   I think he's a king (#15)
    through the woods, they look
    like sort of bunnies

hopping (#16)

Stimulus C:

. . . just like two tall   the true colours do not come
fir trees (#1)   through, and are the colours of
                                  fantasy (#14)

THE METALINGUISTIC TASKS

Quantitative and Qualitative Production
  of Simile: Task 4a

          Task 4a asked the children to give similes for the three

stimuli. The task was purely metalinguistic in that if the child did

not know what a simile was, he/she could not respond. Many children

asked, "What's a simile?" or "What does simile mean?," but definitions

or examples were not given, and a zero response was recorded.

          Clearly, the Grade 8 pupils were able to produce far more

similes than the Grade 6 children, while the Grade 4 children produced

none at all (see Tables 11 and 12). The difference across grades

was highly significant (p < .01). However, of the 20 pupils in the

Grade 8 selection, all similes produced for all three stimuli were

given by only nine pupils, while six of these nine consistently gave

at least one simile for each stimulus. Although the Grade 8 pupils

in the study had, quite coincidentally, studied simile and metaphor

in language arts classes just prior to the collecting of the data,

only six consistently generated similes in the study. Some Grade 8

pupils thought that similes were about "things that are the same,"

and several Grade 6 children asked if similes meant that the two

things were the same or similar.

          Qualitatively ($\frac{TS}{S}$) there was a significant difference across

Table 11

CELL MEANS OF SIMILES FOR FACTORS A AND B
(GRADE AND STIMULUS) TO TASK 4a
N = 20

Stimulus	A	B	C
Grade 4	0.00	0.00	0.00
6	0.00	0.00	0.10
8	0.65	0.50	0.45

Table 12

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF ALL SIMILE RESPONSES: TASK 4a

Source	s.s.	df	m.s.	F	p
Between Subjects	43.578	59			
A	10.711	2	5.356	9.288	0.000**
Subjects Within Groups	32.867	57	0.577		
Within Subjects	12.000	120			
B	0.078	2	0.039	0.388	0.679
AB	0.489	4	0.122	1.219	0.307
B x Subjects WG	11.433	114	0.100		

Note. Factor A - Grade
     Factor B - Stimulus

** Significant at the .01 level

grades for simile production, i.e. the Grade 8 pupils gave signifi-
cantly more true similes for all similes produced in Task 4a (Table
13). This is easily explained by the fact that the children in
Grade 6 only gave two similes (one respondent), and no children in
Grade 4 came forth with similes (Table 14). Of the 13 simile
responses given for Stimulus A by Grade 8 pupils, 10 were true
similes; of 10 simile responses for Stimulus B, six were true similes,
and two-thirds of the Stimulus C responses were true similes.

Some examples of Task 4a similes are:

Grade 6   The shapes look like trees in autumn. (#33, Stimulus C)

Grade 8   The dog's as cunning as a fox. (#1, Stimulus A)

            The deer is as swift as the northern winds that come in
            January. (#9, Stimulus B)

            The moon is as dull as one candle to light up a whole
            room. (#11, Stimulus C)

            The giraffes look like mastadons. (#13, Stimulus C)

Quantitative and Qualitative Production
of Metaphor: Task 4b

Although statistically there was no significant difference
across grades for quantity or quality of metaphors produced (Tables
15 and 16), frequency counts (Table 14) showed that Grade 8 pupils
once again produced far more metaphors than did children in the other
grades. However, the total number of metaphors produced for all
three stimuli only amounted to nine for Grade 8 responses. Again,
although the Grade 8 pupils had only recently studied metaphors (in
literature), only four pupils contributed, and only two of these
contributed for all three stimuli. Common comments were: "I've

Table 13

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF RATIO OF TRUE SIMILE
TO ALL SIMILE RESPONSES: TASK 4a

Source	s.s.	df	m.s.	F	p
Between Subjects	12.715	59			
A	2.853	2	1.426	8.244	0.001**
Subjects Within Groups	9.863	57	0.173		
Within Subjects	2.833	120			
B	0.003	2	0.001	0.058	0.944
AB	0.106	4	0.026	1.104	0.358
B x Subjects WG	2.725	114	0.024		

Note. Factor A – Grade
Factor B – Stimulus

** Significant at the .01 level

Table 14

QUANTITY OF SIMILE AND METAPHOR RESPONSES, NUMBER OF RESPONDENTS, AND
RESPONSES PER RESPONDENT: TASK 4a, 4b

	Simile (4a)						Metaphor (4b)					
	No. Responses			No. Respondents (No. Responses Each)			No. Responses			No. Respondents (No. Responses Each)		
Stimulus	A	B	C	A	B	C	A	B	C	A	B	C
Grade 4	-	-	-	-	-	-	-	-	-	-	-	-
Grade 6	-	-	2	-	-	1(2)	1	1	1	1(1) same respondent	1(1)	1(1)
Grade 8	13	10	9	5(1) 2(2) 1(4)	8(1) 1(2)	4(1) 1(2) 1(3)	2	4	3	2(1)	4(1)	3(1)

Table 15

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF ALL METAPHOR RESPONSES: TASK 4b

Source	s.s.	df	m.s.	F	p
Between Subjects	9.867	59			
A	0.700	2	0.350	2.176	0.123
Subjects Within Groups	9.167	57	0.161		
Within Subjects	1.333	120			
B	0.033	2	0.017	1.541	0.219
AB	0.067	4	0.017	1.541	0.195
B x Subjects WG	1.233	114	0.011		

Note. Factor A - Grade
Factor B - Stimulus

Table 16

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF RATIO OF TRUE METAPHOR
TO ALL METAPHOR RESPONSES: TASK 4b

Source	s.s.	df	m.s.	F	p
Between Subjects	0.328	59			
A	0.011	2	0.006	1.000	0.374
Subjects Within Groups	0.317	57	0.006		
Within Subjects	0.667	120			
B	0.011	2	0.006	1.000	0.371
AB	0.022	4	0.006	1.000	0.411
B x Subjects WG	0.633	114	0.006		

Note.   Factor A – Grade
        Factor B – Stimulus

studied them but forgotten what they are," and "We just took them in class but I forget which one's which" (simile and metaphor), and "Metaphors are things that are different" (similes being things that are the same).

Some examples of Task 4b metaphor responses are:

Grade 6   The dog represents the night and the day. (#21, Pseudo-metaphor)

Grade 8   The deer reminds me of a grazing gazelle. (#1, Associational Link)

The giraffes are in a forest of fire. (#13)

One of the giraffes is as tall as the Empire State Building. (#17, Simile for Metaphor)

Either the Grade 8 pupils were being very reticent, or else instruction in language arts had not prepared them for producing their own similes and metaphors. The study of simile and metaphor at the junior high school level, introduced in Grade 8, approaches figurative language via the analysis of writers' and poets' works, often well-known short stories and poems considered modern-day classics. Although the pupil can recognize a simile or metaphor in the text of the story or poem, what makes the metaphoric expression novel, what constitutes its parts, what binds it together and links it to the total expressiveness of the genre is not understood by the pupil. Moreso, the pupil is not given the opportunity or the instructional facility to produce his/her own novel similes and metaphors. This, together with the decrease across higher grades of the opportunity for oral expression, leaves the Grade 8 pupil often with language tools and forms which are academic only, not having had the opportunity to be incorporated into everyday oral language

situations.

Quantitative and Qualitative Production
of Simile: Task 5a

Tasks 5a and 5b were the metalinguistic tasks where pupils were shown examples of similes and metaphors, and a brief discussion with each child explained what made the phrase or sentence a simile or metaphor.   The child then was asked to give similes (5a) or metaphors (5b) for the three stimuli.

The two-way analysis of variance of all simile responses (Table 17) shows that there was no significant difference across grades.   However, reference to Table 18 reveals that over all the stimuli, Grade 4 pupils produced 144 simile responses, Grade 6 pupils 152, and Grade 8 pupils 106.

For all three stimuli the number of respondents to the task averaged 20 for Grade 4, 19.3 for Grade 6, and 17.6 for Grade 8. Clearly the Grade 4 and Grade 6 pupils were much more vocal than the pupils in Grade 8.   The Grade 8 children met the requirements of the task, but minimally, i.e. they tended to give just one simile for each stimulus, and felt that there was no need to produce more, though the ability to produce more must certainly have been there. On the other hand the Grade 4 and 6 pupils were willing to produce multiple similes for each stimulus.

Qualitatively, there was a very significant difference across grades (Table 19, p < .01), with the Grade 8 pupils producing a greater percentage of true similes to all simile responses than the other two grades.   Table 20 shows the percentages of true simile to

Table 17

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF ALL SIMILE RESPONSES: TASK 5a

Source	s.s.	df	m.s.	F	p
Between Subjects	248.200	59			
A	20.134	2	10.067	2.516	0.090
Subjects Within Groups	228.067	57	4.001		
Within Subjects	160.000	120			
B	1.301	2	0.650	0.484	0.618
AB	5.366	4	1.341	0.997	0.412
B x Subjects WG	153.334	114	1.345		

Note. Factor A - Grade
       Factor B - Stimulus

Table 18

FREQUENCY, RESPONDENTS, AND NUMBER OF RESPONSES PER RESPONDENT OF TRUE SIMILE
AND ALL OTHER SIMILE RESPONSES: TASK 5a

	True Simile			All Other Simile Responses			Total Simile Responses
	Respondents (No. Responses Each)			Respondents (No. Responses Each)			
	Stimulus A	B	C	Stimulus A	B	C	
Grade 4	17	15	21	30	37	24	144
	2(1)	8(1)	6(1)	9(1)	9(1)	12(1)	
	6(2)	2(2)	1(2)	6(2)	3(2)	3(2)	
	1(3)	1(3)	3(3)	3(3)	2(3)	2(3)	
			1(4)		1(4)		
					1(5)		
					1(7)		
Grade 6	33	20	29	21	23	26	152
	4(1)	5(1)	9(1)	5(1)	7(1)	7(1)	
	7(2)	6(2)	1(2)	3(2)	3(2)	3(2)	
	1(3)	1(3)	2(3)	2(3)	2(3)	3(3)	
	1(4)		3(4)	1(4)	1(4)	1(4)	
	1(8)						
Grade 8	30	25	25	8	7	11	106
	7(1)	9(1)	6(1)	4(1)	5(1)	2(1)	
	3(2)	3(2)	5(2)	2(2)	1(2)	3(2)	
	3(3)	2(3)	3(3)			1(3)	
	2(4)	1(4)					

Table 19

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF RATIO OF TRUE SIMILE
TO ALL SIMILE RESPONSES: TASK 5a

Source	s.s.	df	m.s.	F	p
Between Subjects	23.248	59			
A	3.550	2	1.775	5.137	0.009**
Subjects Within Groups	19.698	57	0.346		
Within Subjects	10.106	120			
B	0.011	2	0.006	0.066	0.936
AB	0.363	4	0.091	1.064	0.378
B x Subjects WG	9.731	114	0.085		

Note. Factor A - Grade
      Factor B - Stimulus

** significant at the .01 level

Table 20

PERCENTAGES OF TRUE SIMILE AND METAPHOR TO ALL SIMILE
AND METAPHOR RESPONSES: TASK 5a, 5b

	% True Simile (5a)				% True Metaphor (5b)		
Stimulus	A	B	C	Stimulus	A	B	C
Grade 4	36	29	47		40	39	55
6	59	47	53		38	48	47
8	76	78	69		50	45	53

all simile responses for each stimulus. Even though total simile responses by both Grade 4 and 6 children were sometimes as much as 40% greater in quantity, qualitatively the Grade 8 responses were as much as 50% superior at times to those of Grade 4 pupils. Table 18 underlines the qualitative aspect of simile productions and further shows that quantitatively there were differences across grades in frequency of true similes produced: Grade 4 = 53, Grade 6 = 82, Grade 8 = 80. The insignificant quantitative difference between Grades 6 and 8 needs to be looked at: if a percentage computation is made of the true simile totals of all simile responses, the Grade 6 figure is 54% and for Grade 8 it is 75%. (Grade 4 is 37%.)

Several characteristic responses at each grade level to Task 5a produced the following examples. The number in parentheses is that of the pupil.

<div align="center">Grade 4</div>

Stimulus A:

The dog is like a tree because they both have a bark. (#48, Attenuated Simile)

The dog's nose is like a black ball. (#42)

Stimulus B:

That deer has hooves as hard as rock. (#43)

The deer's horns look like hands. (#44)

Stimulus C:

The giraffe is as tall as a skyscraper. (#44)

The castle in that picture looks like a giant red Christmas tree. (#55)

<u>Grade 6</u>

Stimulus A:

His tongue is like a raindrop, falling from the sky.   (#27)

His legs look like those big brushes they use on car washers.   (#37)

Stimulus B:

The deer's antlers are like the devil's fork.   (#27)

The deer has a tail that's really fluffy like cotton candy.   (#28)

Stimulus C:

The giraffes are like towering trees that have lost their branches and leaves.   (#21)

The trees are like sails on a pirate ship.   (#27)

<u>Grade 8</u>

Stimulus A:

His fur's as silky as sliding on an ice patch.   (#11)

As quick as a weasel.   (#15)

Stimulus B:

The hooves of the deer look like hockey pucks.   (#2)

The deer is as fleet as the god Mercury.   (#14)

Stimulus C:

The sun is as red as a blushing face.   (#11)

The painting is as colourful as a paintset.   (#12)

<u>Quantitative and Qualitative Production
   of Metaphor: Task 5b</u>

Task 5b elicited metaphoric responses after each pupil had been exposed to four examples of metaphor. Statistical analysis (Table 21) showed significant differences across grade levels and

Table 21

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF ALL METAPHOR RESPONSES: TASK 5b

Source	s.s.	df	m.s.	F	p
Between Subjects	262.200	59			
A	41.733	2	20.867	5.395	0.007**
Subjects Within Groups	220.467	57	3.868		
Within Subjects	126.000	120			
B	7.433	2	3.717	3.742	0.027*
AB	5.333	4	1.333	1.342	0.259
B x Subjects WG	113.234	114	0.993		

Note. Factor A - Grade
       Factor B - Stimulus

** significant at the .01 level
 * significant at the .05 level

across stimuli when all metaphoric responses were analyzed. However, the differences examined in Table 22 explain that the Grade 8 students gave fewer metaphoric responses than did the Grade 4 respondents, while the Grade 6 children produced almost twice as many responses as the Grade 8 pupils.

Qualitatively $(\frac{TM}{M})$ there was not a great deal of difference between grades, and no significant difference (Table 23). Over all three stimuli the Grade 8 pupils produced 50% true metaphors to all metaphor responses, while for Grade 6 the figure was 45%, and for Grade 4, 45%.

Also interesting in analyzing the Task 5 metaphor responses is the number of respondents at each grade level. Table 22 shows the number of respondents at each grade level for each stimulus, for both true metaphor and all other metaphor responses. At the Grade 8 level more respondents were responsible for the true metaphors given than at the other two grade levels; i.e. the ratio of true metaphors per respondent was lower (1.2) at the Grade 8 level than at the Grade 6 (1.5) or Grade 4 (1.7) level.

It would seem as though the Grade 8 pupils are reticent in responding to the task, and feel that a single metaphoric response for each stimulus is sufficient to satisfy the requirement of the task. Although the Grade 4 and Grade 6 pupils were much more vocal, they also produced a greater percentage of similes for metaphors, frozen metaphors and pseudometaphors. Similes given for metaphors made up the greatest number of All Other Metaphor Responses in Table 22.

Table 22

FREQUENCY OF TRUE METAPHOR AND ALL OTHER METAPHOR RESPONSES, RESPONDENTS
AND RESPONSES PER RESPONDENT: TASK 5b

	True Metaphor Respondents (No. Responses Each)			All Other Metaphor Responses Respondents (No. Responses Each)			Total Metaphor Responses
	Stimulus A	B	C	Stimulus A	B	C	
Grade 4	17	14	23	25	22	19	120
	5(1)	4(1)	8(1)	7(1)	10(1)	10(1)	
	2(2)	2(2)	3(2)	3(2)	4(2)	3(2)	
	1(3)	2(3)	3(3)	1(3)	1(4)	1(3)	
	1(5)			1(4)			
				1(5)			
Grade 6	15	24	27	24	26	30	146
	7(1)	3(1)	4(1)	4(1)	7(1)	3(1)	
	1(2)	6(2)	6(2)	6(2)	4(2)	7(2)	
	2(3)	1(4)	2(3)	1(3)	2(3)	1(3)	
		1(5)	1(5)	1(5)	1(5)	1(4)	
						1(6)	
Grade 8	11	10	17	11	12	15	76
	11(1)	4(1)	7(1)	4(1)	7(1)	5(1)	
		3(2)	5(2)	2(2)	1(2)	2(2)	
				1(3)	1(3)	1(6)	

Table 23

TWO-WAY ANALYSIS OF VARIANCE (GRADE, STIMULUS) OF RATIO OF TRUE METAPHOR
TO ALL METAPHOR RESPONSES: TASK 5b

Source	s.s.	df	m.s.	F	p
Between Subjects	22.484	59			
A	0.183	2	0.092	0.234	0.792
Subjects Within Group	22.301	57	0.391		
Within Subjects	12.254	120			
B	0.460	2	0.230	2.280	0.107
AB	0.299	4	0.075	0.742	0.565
B x Subjects WG	11.495	114	0.101		

<u>Note.</u> Factor A – Grade
        Factor B – Stimulus

For all stimuli the Grade 4 children gave a total of 50 similes for metaphor, Grade 6 children gave 52 while Grade 8 pupils gave only 33. However, in terms of the overall reticence of the Grade 8 pupils to the task, this lower figure is not significant. In terms of percentage of similes for metaphors of all metaphor responses to the task, the Grade 8 figure is 43% for all stimuli, while for Grade 6 it is 36% and for Grade 4, 42%. The strong tendency to produce similes for the metaphor task is obvious at all three grades.

This tendency leads one to hypothesize that children, at least across the grade levels included in this study, find it easier to produce similes than metaphors, possibly because the simile form is more explicit linguistically than is the metaphor form.

The tendency to confuse simile for metaphor, or to prefer the simile form because it is more explicit and less abstract, is further evidenced by the trend of several children in Grade 6, and particularly in Grade 8, to convert similes they had previously given for Task 4a or 5a to metaphors for Task 5b. Three samples from Grade 8 respondents are:

#9	Task 4a (Simile):	The white fur on the dog is as soft as the down on a newborn chick.
	Task 5b:	The dog is a downy chick.
#16	Task 4a (Simile):	The legs (dog's) look like bottles.
	Task 5b:	The dog's legs are bottles.
#19	Task 5a (Simile):	The deer is alert and foxy like a fox.
	Task 5b:	The deer is a fox.
	Task 5a (Simile):	The giraffes are like three cautious robbers.
	Task 5b:	The giraffes are robbers.

The lack of novel and original metaphoric thought and subsequent language evident in these conversions of simile to metaphor suggests that the metaphoric mode is a difficult one even for Grade 8 students. The examples given above show that the metaphors were largely produced by simple truncation of the simile, leaving out the focus and thereby making it implicit.

Of great interest is the significant difference (p < .05) across stimuli for all metaphor responses to Task 5b (Table 21). Stimulus C elicited the greatest number of true metaphors of all stimuli at all three grade levels. Likewise, there were more respondents to Stimulus C than to the other stimuli by children in all three grades. Qualitative analysis as shown by Table 23 does not show a significant difference across stimuli, but this is largely because the Grade 6 and 8 pupils produced more total metaphor responses for Stimulus C than for either of the other two stimuli (Table 22).

Stimulus C was clearly very useful in eliciting metaphoric language at all three grade levels, and particularly with children in Grades 6 and 8. In fact some Grade 8 pupils (cf. #14) voluntarily commented (as opposed to being asked their opinion) that they found the giraffe (Stimulus C) easiest for producing similes and metaphors, and the dog (Stimulus A) the hardest. Table 22 also shows that Stimulus A was favoured for metaphoric oral language production by the Grade 4 children.

The following examples give an idea of the metaphoric responses to Task 5b given by children at each grade level.

Grade 4

Stimulus A:

The top of the fur on the dog's head is a white furry hat.   (#42)

The dog's tongue is a raindrop. (#54)

Stimulus B:

The deer's antlers are sticks. (#57)

The deer has leaves for ears. (#60)

Stimulus C:

That sun is a ball of fire. (#47)

The giraffe is an oil tower. (#56)

Grade 6

Stimulus A:

The dog is a small masked man. (#34)

The nose is a jawbreaker. (#35)

Stimulus B:

The log in the background of the deer is an old, lazy witch with crinkled skin. (#27)

The deer's ears are flat leaves. (#33)

Stimulus C:

The trees are the sails of old Blackbeard's ship. (#27)

The giraffe's legs are stilts. (#40)

Grade 8

Stimulus A:

The dog is a snowball. (#11)

The dog is a statue. (#14)

Stimulus B:

    His antlers are needles.   (#11)

    The deer is a tree.   (#13)

Stimulus C:

    The sun or moon in this picture is a daffodil-coloured globe of fire.   (#1)

    The painting is string art.   (#13)

      An interesting finding was the significant difference across stimuli for Task 5b (metaphor) which did not prove significant for Task 5a (simile). This disparity between the different tasks for stimulus preference might be explained by the predilection for simile, and the ease in producing simile relative to metaphor as previously discussed. Since the children at all three grade levels were able to produce similes with little trouble when given an example, and since almost all children at each grade level responded, there was a tendency to produce an equal number of similes for each stimulus, with the Grade 8 pupils usually producing one simile per stimulus as stated previously in discussion. Since the task asked pupils to give similes for the three stimuli, children might well have thought that it was appropriate for them to give equal attention to each stimulus.

      With the metaphor task (5b) the greater difficulty faced by the children in producing a metaphor might well have led them to con-centrate on the stimulus which provided most opportunity for abstract thought and abstract ideas. This would explain why the abstract Stimulus C was preferred. The Grade 4 children, operating very much within the concrete operations cognitive stage, showed a liking for Stimulus A, the most concrete of the stimuli, though the abstract

stimulus did elicit the most true metaphors by them (Table 22).

SUMMARY

Three-way and two-way analyses of variance were used to analyze the data obtained, so that factors such as grade, task and stimuli could be isolated as accounting for frequency and quality of simile and metaphor responses. Interactions between factors were also analyzed by the statistics employed.

While differences across grades were not significant for the spontaneous oral language part of the study, there was a significant difference across grades in the metalinguistic tasks. The major differences noted were across tasks, and particularly across stimuli, with the interaction of task and stimuli accounting for some significant difference.

Discussion contiguous with the description of analysis of the data suggests language and developmental factors which explain the differences pinpointed by the statistics.

Chapter 5

SUMMARY, CONCLUSIONS AND IMPLICATIONS

SUMMARY

The Purpose

The study was conducted for three main purposes. The first
was to design an instrument to elicit both spontaneous oral language
production and metalinguistic knowledge of simile and metaphor. The
second purpose was to elicit and examine children's oral language to
see if simile and metaphor exist in middle childhood, and then to
examine the nature of responses to different tasks and stimuli, and
the nature of differences across grades four, six and eight. Third,
the study was to develop criteria for analysis of quantitative and
qualitative aspects of simile and metaphor productions of children.

Sample and Design

Twenty children at each grade level four, six and eight were
randomly selected using a criterion of IQ score within the range 110-
125. There was equal representation of boys and girls within each
grade.

An instrument was designed to elicit children's spontaneous
oral figurative language using a variety of tasks from a descriptive/
criterial task to an association task to a figurative/storytelling
task. For each task three stimuli were utilized, these ranging from
concrete to abstract representation. After the spontaneous language

tasks were administered, each child was given two metalinguistic tasks, one to determine ability to use the forms when given examples of simile and metaphor.

Children were tested individually and oral responses were tape recorded. From the tape recordings similes and metaphors were transcribed onto data sheets, and the following categories for analysis of the responses were developed: (true) similes, partial similes, incomplete similes, attenuated similes, restricted similes, associational links; (true) metaphors, frozen metaphors, pseudometaphors.

Analyses of variance were the statistical procedures used to look at quantitative and qualitative responses for the spontaneous language tasks and the metalinguistic tasks. Significant differences across factors of grade, task and stimulus for number of simile and metaphor responses, and for ratio of true simile or metaphor to all simile or metaphor responses (qualitative) allowed questions addressed by the study to be answered.

The Findings

QUESTION 1: Is there increased production of simile and metaphor across grade levels four, six and eight?

Contrary to the findings of Gardner (1974), Gardner et al. (1974), and to a large extent those of Pollio and Pollio (1974), there was not a significant increase across grades in the production of simile and metaphor. However, the different natures of the studies need to be taken into consideration. Grade 4 children contributed fewer, with Grade 6 and 8 children producing about equal numbers of similes and metaphors. Reticence on the part of Grade 8 pupils was

noticeable; there was less oral language produced by them, especially in the composition task. Some Grade 8 pupils would have felt more at ease with a written composition task, and stated this.

QUESTION 2:   Is there a qualitative difference across grades four, six and eight of similes and metaphors produced?

Analysis of the data showed no significant differences across grades in ratio of true simile or metaphor to all simile or metaphor responses. Once again, this is not consistent with the production findings across age levels of the Gardner et al. (1974) study. In qualitative metaphor production the Grade 8 pupils produced the greatest number of true metaphors of the three grades, and the fewest frozen metaphors and pseudometaphors. It could be argued that had the Grade 8 pupils been more fluent in their oral language the differences across grades might have been statistically significant. The Grade 8 pupils seemed to have a degree of control over their oral language, though at the expense of fluency.

QUESTION 3:   Will different tasks have quantitative and qualitative effects on the production of similes and metaphors?

Quantitatively and qualitatively there were significant differences across tasks for simile productions. However, instead of a quantitative progression from the description task to the composition task, the reverse progression was evident. Children at all three grades tended to respond in this pattern across the tasks. Though not significant, the same trend was evident for metaphor productions.

Perhaps frequency of simile and metaphor declined across the tasks as children exhausted possibilities of associating the stimulus,

or parts of the stimulus, with disparate things or ideas. But it does appear quite evident that children at the three grade levels use very few similes and metaphors in their oral stories.

QUESTION 4: Will different stimuli have quantitative and qualitative effects on the production of similes and metaphors?

The findings arising from analysis of the data for stimuli make for one of the most interesting conclusions of the study. Significant differences across stimuli were evident for both quantitative and qualitative aspects of simile and metaphor. For frequency of simile responses the abstract stimulus produced twice as many as the pictorial stimulus, and three times as many as the concrete stimulus. For frequency of metaphor, the abstract stimulus produced twice as many as either of the other two stimuli. Qualitatively the differences were even more pronounced.

For each grade there was a progression in both frequency and quality of simile and metaphor between the concrete and abstract stimuli. The abstract stimulus was very successful in eliciting oral production of simile and metaphor, both quantitatively and qualitatively, from children of all three grades in the study. Type of stimulus was the most salient factor in the spontaneous language part of the study in production of metaphoric oral language.

QUESTION 5: For metalinguistic tasks is there a quantitative and qualitative difference in production of simile and metaphor across grade levels four, six and eight?

For the simile knowledge task there was a significant difference across grades in number and quality ($\frac{TS}{S}$) of simile responses. No Grade 4 children gave similes, there were only two Grade 6

responses, while the Grade 8 pupils produced 32 simile responses.

The metaphor knowledge task gave no significant differences across grades, with frequency counts showing that Grade 4 children produced no metaphor responses, Grade 6 pupils gave three, and Grade 8 pupils gave nine metaphor responses.

The Grade 8 pupils in the study were definitely capable of producing similes, as evidenced by the simile knowledge task responses, and five of their eight metaphor responses were actually similes. However, this linguistic ability does not appear in their spontaneous oral language any more frequently than it did for the Grade 4 and 6 children in the study.

The simile task with examples and simile explanation showed no significant difference quantitatively across grades, though the Grade 8 pupils were reticent in producing fewest simile responses. However, qualitatively ($\frac{TS}{S}$) there was a significant difference across grades, with the Grade 8 pupils giving the greatest percentage of true similes, followed by the Grade 6 pupils.

For the metaphor task with examples and explanation of metaphor there was a significant difference across grades in number of metaphor responses. The Grade 6 pupils gave the greatest number of metaphor responses, and the Grade 8 pupils the least. The reticence of the Grade 8 pupils was again evident in this task. Qualitatively ($\frac{TM}{M}$) there were no significant differences across grades. The Grade 8 responses were hardly different qualitatively from those of Grade 4 and 6 pupils, with Grade 4 pupils giving 41% of similes for metaphors, Grade 6 producing 43% of similes for metaphors, and Grade 8 pupils 43%.

QUESTION 6:   For metalinguistic tasks will different stimuli have
quantitative and qualitative effects on the production
of simile and metaphor?

There were no significant differences across stimuli for either

simile or metaphor responses to the metalinguistic tasks without

examples. This was largely expected, as the three stimuli were pre-

sented together, and children may have felt that they should give

equal metaphoric attention to each stimulus.

Qualitatively $(\frac{TS}{S}, \frac{TM}{M})$ for the two tasks without examples

there were no significant differences across stimuli, this also

being expected because of the reason given above. The Grade 8 pupils

proved to be the most capable of all children in producing true

similes, but their reticence resulted in fewest simile productions of

the three grades.

In terms of differences across stimuli for the simile and

metaphor tasks with examples and explanations provided, a significance

was found for all metaphor responses, but qualitatively $(\frac{TM}{M})$ there were

no significant differences. Once again the abstract stimulus was

dominant in evoking more metaphor responses than did either of the

other two stimuli. An exception was with Grade 4 children who pro-

duced the same number of metaphor responses for both the concrete

and abstract stimuli. Their attention to the concrete stimulus might

be explained by the predominance of concrete cognitive operations.

The attraction to and significance of the abstract stimulus

for metaphor responses is important to note because of the concomitant

tendency for children at all three grade levels to prefer the abstract

stimulus for simile and metaphor production in the spontaneous

language tasks.

CONCLUSIONS

Type of stimulus proved to be the single most influential factor in both quantitative and qualitative production of similes and metaphor to spontaneous language tasks. Children at all three grade levels preferred the abstract stimulus for metaphoric language production. The findings suggest that abstract, complex (in terms of content) and unfamiliar stimuli are more effective than concrete stimuli in evoking children's metaphoric oral language.

The nature of the task is also significant in production of figurative elements in children's oral responses to spontaneous language tasks. A description task was preferred by children in their use of similes, both in quantity and quality of responses. This suggests that a descriptive task using abstract stimuli would provide a fertile beginning for eliciting children's metaphoric language.

Grade proved not to be a significant factor in children's metaphoric oral language production to spontaneous language tasks. The metalinguistic tasks showed that older children do have superior ability over younger elementary school children in producing metaphoric language, but don't exercise this ability in their spontaneous oral language. Language control for older children is at the expense of fluency. The suggestion is that programs in language arts to develop children's oral metaphoric language can be successfully introduced in the early elementary grades.

Finally, the system devised to analyze the types of oral simile and metaphor offered by children seems appropriate for that purpose. In addition, though there are no direct supportive data due to the stratification of the sample by age/grade level, use of the response categories suggested to the investigator that the scoring system might also indicate maturity in the production of simile and metaphor. Thus the analytic scale might well prove a useful base for research into the development of figurative language.

The first step in simile production might be seen as beginning with associational links. Here the main and subsidiary subjects are articulated, but the metaphoric link between the two is not articulated and often cannot be explained by the child.

Restricted similes have the basic syntactic elements of true similes, but the associational thought behind the expression is very restricted. Restricted similes show that the child's associations are tied to the immediate surroundings, so that the novel and creative aspects of metaphoric thought and language are not present.

Attenuated similes show a greater development of metaphoric thought than do restricted similes. Linguistically the producer, however, has failed to understand the simile form, and so reiterates the focus and makes awkwardly explicit the associated commonplaces. This makes the simile unappealing and unimaginative to the listener or reader.

Partial similes have all the associational thought and language qualities needed to produce a communicative, meaningful and appropriate simile, with the exception of the focus. This tends to leave the meaning or association within the simile somewhat open to ambiguity,

and the true associational link intended by the producer can be lost or distorted. Ambiguity of associational thought might even be the intention of metaphoric language employed in literature by writers and poets. But within this study, and in children's spontaneous oral language, such metalinguistic intention is hardly a factor to be considered.

Perhaps the omission of a focus in simile is a result of egocentrism during concrete operations. Egocentrism can recur in the early part of formal operations, where a child will assume that because he/she knows the focal link between the two disparate subjects, then others will, and so there is no need to make this explicit in the simile.

Maturational trends in metaphor responses are somewhat less clearly suggested in the study, as relatively few metaphor responses were given. There were virtually no associational links made for the metalinguistic metaphor tasks. Associational links for the spontaneous language tasks could develop into either a simile or metaphor, but given the more difficult process of metaphor, and the attenuated nature of associational link production, it is very likely that associational links would naturally lead into simile rather than metaphor.

Pseudometaphors show lack of understanding of form, either metaphorically (one thing becoming another) or linguistically. Sometimes the abbreviated quality of metaphor is not understood, and the metaphoric statement becomes attenuated by the inclusion of an explicit focus. Often the metaphoric thought process is restricted in depth by the reliance on the immediate surroundings for a subsidiary subject of comparison.

Frozen metaphors do give the child the metaphor form in a capsule, but whether the child understands the metaphoric background to the frozen metaphor is doubtful. To the user a frozen metaphor is a cliché, another means of describing a thing, a situation, a feeling, a sensation. It is doubtful that the possession of a repertoire of frozen metaphors will ensure that the child will be able to generate his/her own novel metaphors.

Of much interest is the great number of similes given for metaphors for the metaphor task with examples. This suggests to the investigator that in metaphoric maturation simile subsumes metaphor, and that children probably prefer to produce similes rather than metaphors. This is likely because the simile form is more explicit, and has a certain "formula" to its production which is easy for children to reproduce.

In their similes given for metaphors the Grade 4 pupils gave a high proportion of partial similes to true similes. This was due to the respondents leaving out the focus of the simile, and leaving it implied, just as a metaphor (for which the task asked) would demand the listener or reader to select the appropriate associated common-places.

Thus, to these Grade 4 children—and the same tendency was found with Grade 6—there is little difference between a partial simile and a metaphor; in fact, if the focal LIKE was omitted, the children would have created a metaphor.

e.g. Giraffes are (LIKE) tall trees.

Grade 4 and 6 children who use these partial similes are quite likely looking for likenesses and differences between the main and

subsidiary subjects. This is opposed to perceiving the more abstract associations which the implied focus of a metaphor, lacking the bridging LIKE, leaves the listener or reader to create. In short, these children are being more literal than metaphoric.

Worth further examination are the maturity levels of metaphor responses to which the metaphor categories seem to lend themselves.

IMPLICATIONS FOR EDUCATION

The children in the study used relatively few similes and metaphors in their spontaneous oral language, yet children at each grade level demonstrated the capacity to generate their own similes and metaphors. The capacity to produce similes and metaphors is present even as early as the Grade 4 level, yet language programs in the schools seldom treat these aspects of figurative language before Grade 8, and then the method of study is generally one of analyzing literary usage of simile and metaphor.

The use of simile and metaphor fulfills an important role in children's oral language. As the study showed, the younger pupils (Grade 4) used similes and metaphors to describe a concrete stimulus to an unfamiliar audience, while children at all three grade levels used the greatest number of similes and metaphors when describing, talking about, and fictionalizing an abstract stimulus.

As teachers we must be aware of these uses of simile and metaphor by children. It would appear that such figurative language is used most frequently when the child has to deal with a descriptive communication situation where the audience is unfamiliar with the

referent, or when the child deals with an abstract stimulus.

Language programs which utilize a variety of challenging and unusual communication situations will provide interesting tasks where children can utilize figurative language. The description task serves as an example of an unusual communication situation.

Even more stimulating for the production of simile and metaphor is the use of abstract forms of stimuli. The painting gives an example of the abstract type of stimulus which was very effective in eliciting simile and metaphor at three grade levels. Large, colourful paintings, graphics and embedded figures are types of abstract stimuli which elicit associational-metaphorical thought and language. The child strives to describe the stimulus not only to himself, but to communicate his associations, thoughts, ideas and comparisons to others.

One of the common failings of children at the three grade levels was that of neglecting to use or to make explicit the focus of a simile. Metaphoric thought which is based on vague associated commonplaces will lead to inappropriate and weak metaphoric language. The teacher can have a child explain why two disparate things are alike, why one thing is the same as another (simile form), and why, in a true metaphor, one thing is another disparate thing. Instruction in, and development of, metaphoric thought and language must pay attention to the use of metaphoric foci.

Associational thought and link form the basis of metaphoric thought and language, and instruction can help to develop this process in children. Although the word 'remind' has been removed from the

original association task, it reappeared in children's oral responses to all tasks and resulted in the category of associational links. Such a task in a classroom setting would elicit many associational links, which the teacher could develop through discussion of associated commonplaces and focus into metaphoric productions. There is never any need to use the terminology of metaphoric analysis when discussing, developing, or instructing pupils in metaphoric language.

The relatively large number of restricted similes and pseudo-metaphors suggests that many children find it difficult to select a subsidiary subject which is antipodal to the referent, yet appropriate to the context. Consequently many children chose as their subsidiary subject another stimulus, i.e. they chose something close at hand, in their immediate environment. The link thus was visual rather than associational/metaphoric. The teacher can evoke more novel, appropriate and creative metaphors by expanding children's thought from beyond the here-and-now to past experiences, associations, memories and concepts. Once children grasp the unique, creative possibilities of metaphoric association, they can largely develop and expand the process them-selves.

The reticence of Grade 8 pupils leaves a responsibility of a language program in the junior high school not met, that of oral language development. The Grade 8 pupils responded to a demand characteristic in the composition task in that they in general would have preferred to have written the story, thereby being able to revise their story and present a polished, corrected, though hardly spontaneous composition. However, this same guardedness in language

production seemed evident also in their oral language compositions.

Unfortunately the great majority of the language tasks given junior high students are of a written nature. Oral language situations seem to be the domain of formal presentations, mostly based on a written task initially. Classroom instruction needs to focus much more on the expansion of children's oral language at the junior high level. Imagination tasks, composition tasks, associational tasks, memory linking tasks, and figurative tasks, all in the oral mode, are appropriate also at the junior high level.

SUGGESTIONS FOR FURTHER RESEARCH

The study has investigated a very interesting field of children's oral language, and presents many unique possibilities for research design and program development.

A study could be designed to correlate children's intelligence scores with frequency and quality of figurative language in general, or specifically metaphoric production. Such a study might select subjects using only an age or grade criterion.

A study which analyzes the metaphoric production of the same group of children in oral and written performance would make a valuable contribution to the literature. A research design based on the Pollio and Pollio (1974) study could utilize tasks which could be responded to both orally and in written form. Results of such a comparative study could be of value in the design of instructional tasks to develop specifically oral and written language.

The criteria for analysis developed in this study could be

validated in a study which uses a much larger sample. If an open (as opposed to criterion-restricted) selection process was adopted, the validity of analytic criteria across a normal population range could be checked.

Variety and type of stimulus could form the nucleus of a study which probes the effectiveness of stimuli on figurative language production either orally, in written form, or both. If a concrete-abstract dimension was used, the study might correlate degree of abstraction to cognitive operational stages.

A study might be developed to further explore the effects of tasks on figurative language production. A task dimension might be used to elicit and examine children's responses in a non-task, natural oral language situation, a task-elicited oral language situation, and a task-elicited written language situation.

An experimental study could be designed where a control group and an experimental group are both sampled for figurative language production, either orally or verbally, over a period of time. The experimental group could be exposed to systematic figurative language models, and the purpose of the study would be to determine if exposure to figurative language results in increased figurative usage in the children's language.

An interesting follow-up study could involve the criteria of analysis developed in this study to look at developmental features of metaphoric language. Also, exploration of children's figurative language in natural settings would provide another perspective for application of the analytic scale.

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APPENDICES

APPENDIX A

ORIGINAL CRITERIA FOR ANALYSIS OF THE DATA

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In the planning stages of this study the researcher considered a variety of techniques for analysis of the data. These were rejected during the study because of their inappropriateness to children's oral production of simile and metaphor. In order to analyze the data collected in terms of quantity of responses, as well as a qualitative and developmental analysis, it seemed more appropriate to generate criteria directly from children's oral responses, rather than imposing external criteria not developed for children's oral production of figurative language.

However, it is worthwhile to discuss the alternate techniques for analysis as considered initially by this researcher, as they may have significance for other researchers in the field.

Bipolar Analysis: Concrete-Abstract Dimension

The analysis of simile and metaphor as either a concrete or abstract associational thought and language production was included as the means of analysis in the original proposal for this study. The concrete/abstract pole was to be determined by analysis of the subsidiary subject of the simile or metaphor production. A qualitative analysis was build in by considering that a concrete subsidiary subject involved a less complex associational thought process than did an abstract subsidiary subject response, as per the qualitative dimension:

SIMILE   METAPHOR

Simple

1. Concrete Subsidiary
    Subject to Main Subject
                                          1. Concrete Subsidiary
2. Abstract Subsidiary   Subject to Main Subject
    Subject to Main Subject
                                          2. Abstract Subsidiary
                                              Subject to Main Subject

Complex
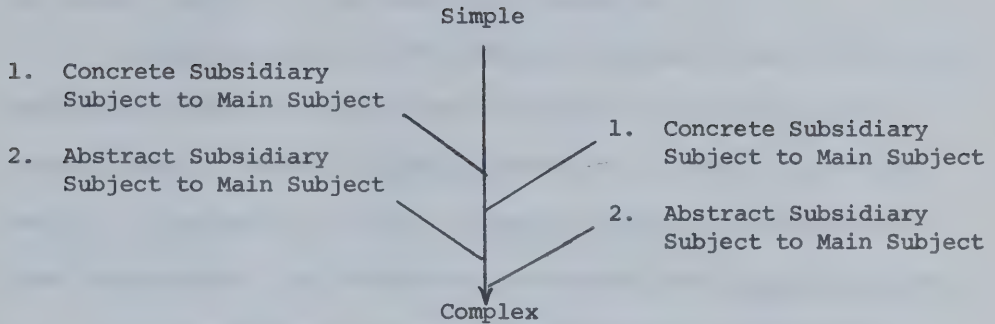
Examples of Analyzed Responses:

The moon is a white ball. (concrete)

The moon is a ghost. (abstract)

A problem envisaged by this technique of analysis is in the identification of an abstract simile or metaphor, and the assumption involved of an abstract subsidiary subject being of a more complex thought and language process than a concrete one.

A further problem, as discovered in the pilot study, was the non-production of any abstract simile or metaphor. The pilot study produced an abstract simile by a Grade 8 boy and girl each, but only for the metalinguistic Task 4b Metaphor.

Frozen/Dead and Novel/Live Categories of Analysis

This technique for analysis was suggested by the Pollio and Pollio (1974) study which analyzed children's figurative language in the written mode. This researcher had considered using these categories for both simile and metaphor:

            Simile   Metaphor

    Frozen/Dead   Novel/Live   Frozen/Dead   Novel/Live

Qualitative assessment was suggested by the more creative act of producing a novel or live metaphoric expression.

Pollio and Pollio (1974) defined a frozen figure as one which had become a part of the lexicon even though still recognizable as nonliteral, e.g. She is <u>bursting</u> with joy. A novel figure was defined as one which is unique, and which the rater has rarely or never experienced, e.g. The words were spoken like <u>fingers of flame</u>.

This researcher envisaged a difficulty with inter-rater reliability, due to the diverse nature of a concept of creativity among persons and the interpretive nature of the definition for novel figures. The technique does have merit in looking at the creative aspect of children's employment of simile and metaphor, though development trends would be difficult to hypothesize.

Grammatical Analysis of Metaphoric Productions

This technique was suggested by the linguistic analysis of metaphoric use in literary genres as developed by Brooke-Rose (1958). The technique classifies metaphors grammatically as either noun, verb, adjective or adverb class.

   egs.   The sun is heaven's candle.   (noun)

          The ship ploughs the ocean.   (verb)

          The lion is a kingly creature.   (adjective)

          He stepped daintily from the curb.   (adverb)

Although useful in analyzing metaphors, this researcher could not see how children's similes could be classed using the linguistic form classes. Similes will almost exclusively fall into the noun class, as the subsidiary subject is almost always a noun,

e.g. The dog is like a checkerboard.

It seemed to this researcher that a separate type of analysis would be needed for similes, making descriptive and developmental comparisons and statements between similes and metaphors, as elicited in this study, virtually impossible to make.

The Active-Passive Production of Simile and Metaphor

Anderson (1964) used these terms to discuss the psychological implications of metaphoric language and usage. It seemed to this researcher that the categories were analygous to the verb (active) and noun (passive) form classes developed by Brooke-Rose (1958).

The previous concern noted for the linguistic analysis applies here also, that of treatment of simile. It would seem that simile could not be rated as being exclusively active or passive.

e.g. The giraffe is like a striped ladder. (passive)

The giraffe is like a leaping tiger. (active)

In the second example the action is inherent in the adjective, which is an integral part of the subsidiary subject, which linguistically is still a noun (tiger).

Examples from the pilot study compounded the problem of analysis using an active-passive criteria:

(a) we say someone is as scared as a rabbit.
                         | |
                      active   passive

(b) we say someone runs like a rabbit.
                      | |
                   active   passive

(c) baby rabbits are just like little mice. (passive)

(d) a pet rabbit is like having a friend.

                            active   passive

(e) looks like it's done with string (for the painting).

                     active   passive

Defining active or passive as determined either by the focus of the simile/metaphor or the subsidiary subject denies the novelty of effect of the entire metaphoric expression. The problem arises of defining active and passive similes in order that independent raters could analyze the data. It seems very limiting semantically to analyze a metaphoric expression on the basis of one or two words, as the focus or subsidiary subject of a simile or metaphor usually contains.

APPENDIX B

THE STIMULI

A

B

C

APPENDIX C

SIMILE AND METAPHOR EXAMPLES USED IN

METALINGUISTIC TASKS 5a AND 5b

SIMILE

an oven is as hot <u>as</u> fire

this cloud is fluffy <u>like</u> whipped cream

SIMILE

the sun set slowly <u>like</u> a sinking red ball

John walked as slow <u>as</u> a tortoise

METAPHOR

She is <u>bursting</u> with joy.

Hair is <u>spaghetti</u>.

METAPHOR

She has <u>rosy</u> cheeks.

The ship sailed lazily out of sight.

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                    METAPHOR


            John is a tortoise.


    The girl flew over the fence and escaped
            from the charging bull
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                    METAPHOR


            It was a happy book.


        The ship sailed lazily out of sight.
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